ATTACHMENT 3
Health and Safety Plan

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SUPPLEMENTAL MINE WASTE ROCK DUMP AND FACILITY SOIL AND VEGETATION CHARACTERIZATION

HEALTH AND SAFETY PLAN

DRAFT
Revision 1

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ACRONYMS AND ABBREVIATIONS

ACGIH	American Congress of Governmental Industrial Hygienists
AOC	Administrative Order on Consent
AIDS	Acquired Immune Deficiency Syndrome
ANSI	American National Standards Institute
CFR	Code of Federal Regulations
CPR	Cardiopulmonary Resuscitation
FTL	Field Team Leader
HEPA	High Efficiency Particulate Air
HSP	Health and Safety Plan
IDEQ	Idaho Department of Environmental Quality
I/HW	Industrial/Hazardous Waste
IDLH	Immediately Dangerous to Life or Health
IMASC	Idaho Mining Association Selenium Committee
JRA	Pre-Job Risk Analysis
MCL	Maximum Contaminant Level
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
OSO	On-Site Safety Officer
PEL	Permissible Exposure Limit
PPE	Personal Protective Equipment
PSO	Project Safety Officer
REL	Recommended Exposure Limit
RI/FS	Remedial Investigation/Feasibility Study
SCBA	Self-Contained Breathing Apparatus
SOP	Standard Operating Procedure
TLV	Threshold Limit Value
TWA	Time-Weighted Average
USEPA	United States Environmental Protection Agency

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1.0 INTRODUCTION

This Health and Safety Plan (HSP) has been prepared to establish the responsibilities, requirements, and procedures for protecting MWH personnel during the P4 Production waste rock dump soil and vegetation characterization sampling effort that is set to be undertaken in the summer of 2009. This HSP has been prepared to provide assigned field personnel with a safe working environment as the investigation proceeds. Specifically, the HSP has been developed to minimize the potential for job-related injuries and illnesses, and to prevent job-related injuries and illnesses from occurring. Where this HSP addresses safe practices for various specific construction activities, this information is provided solely as directives or guidelines for protecting MWH employees and establishing minimum requirements for MWH Subcontractors. Any questions over implementation of this plan should be addressed to the Project Safety Officer or the MWH Regional EH&S Manager. See table 3-1 for complete contact list.

A fundamental principle of industrial safety and loss prevention is that most accidents that cause injury, illness, or property damage are preventable. Investigations of the causes of industrial accidents and illnesses have demonstrated that most injuries or illnesses are the result of unsafe acts or conditions. Thus, minimizing industrial accidents and illnesses can be accomplished by recognizing, evaluating, and controlling unsafe acts and conditions.

Employees are required to employ safe work practices and comply with applicable MWH requirements, as well as the applicable requirements of the agencies responsible for regulating industrial health and safety, including the OSHA and MSHA. Furthermore, P4 Production employs its own practice of training every contractor that works on the Soda Springs Phosphate Mine site to ensure that everyone on the site is knowledgeable and aware of the hazards that exist. This process and the applicable documents are discussed where applicable in this HSP.

2.0 SITE SAFETY AND HEALTH ANALYSIS

This section of the HSP identifies activity-specific hazards that may be encountered at project sites during the course of planned field activities, as well as methods that will be employed to control exposure to these hazards. The field activities in 2009 will involve the collection of soil and vegetation, with sample locations being either on, or adjacent to, P4 Production's phosphate mines.

Some of the selected sample sites are readily accessible by vehicle; others, however, are not directly accessible by vehicle, and may require travel on foot. Health and safety issues that are associated with these sites requiring extensive foot travel will be addressed herein.

Specific activities that may be involved in the investigation are listed in Appendix A, *Activity Hazard Analysis* together with the hazards that may be associated with these activities and recommended controls to minimize risk to MWH and subcontractor field personnel. Recognized specific chemical, physical, and biological hazards that may be encountered during field activities are also discussed in the following paragraphs.

Although phosphate ore bodies are known to have slightly elevated concentrations of Uranium-238 (^{238}U) radiation has not been identified as a hazard that is likely to be associated with this project and monitoring for ionizing radiation will not be undertaken during the investigation. Additional safety practices more generally applicable to field activities are summarized in the subsequent sections of this plan.

2.1 POTENTIAL CHEMICALS HAZARDS

The hazards that may be associated with chemical contaminants can be assessed through comparison of measured or estimated personnel exposures to established occupational exposure limits. PELs are established by OSHA, while RELs are established by NIOSH. IDLH concentrations are also established by NIOSH. TLVs and TWAs are established by the ACGIH. PELs may be expressed as an 8-hour TWA or as a ceiling limit. Ceiling limits may not be exceeded at any time, and are enforceable by law. RELs are published guidelines that set employee exposure limits for airborne contaminants. RELs are expressed as a TWA or ceiling limit. The ACGIH TLV/TWA is the airborne concentration of a substance to which nearly any worker may be repeatedly exposed 8 hours per day, 40 hours per week, without experiencing adverse health effects. For some substances, the overall exposure to a substance is aggravated by contact with skin, mucous membranes, or the eyes. Other substances have a ceiling value that may not be exceeded during any part of the workday. An IDLH concentration is the maximum airborne concentration of a substance that one could escape within 30 minutes without impairing symptoms or irreversible health effects. It is not anticipated that MWH personnel will be exposed to airborne contaminants above regulatory limits if prudent work practices, including dust control, are employed during the sampling event(s).

Extensive sampling has been undertaken in many areas of the Southeast Idaho Phosphate Resource Area to date by MWH and P_4 Production, the IMASC companies, and regulatory agencies. Based on area history, the events that prompted this investigation, and sampling to

date, naturally-occurring selenium, cadmium, molybdenum, and other trace elements in the phosphate ore body could potentially pose a hazard to sub-populations. Empirical evidence and evaluation of existing data indicate that there has been and is no reasonable possibility for health hazards to local residents. Such residents (who are assumed to consume exposed fish, game, and cattle) have high degrees of exposure—speaking relatively, rather than absolutely. Exposures to employees implementing the scope of work covered by this plan are substantially less and thus, there is no reasonable possibility for employee exposure to safety or health hazards associated with these substances. Table 2-1 presents occupational exposure limits and toxicological information for selenium and for other metals that could be present at the sampling sites.

2.2 RADIOLOGICAL HAZARDS

Phosphate ore in the southeast Idaho Phosphate Resource Area has slightly elevated levels of naturally occurring radionuclides, i.e., isotopes that produce ionizing radiation. Most notable is the isotope ^{238}U. Natural background in soils varies significantly throughout the United States but generally ranges from 2 to 10 picocuries per gram (pCi/g), whereas phosphate ore contains 23 to 28 pCi/g of ^{238}U. In addition, the ^{238}U found in ore is in equilibrium with all of it's decay daughters, including radium, radon, and polonium (i.e., all of the decay daughters would be expected to range from 23 to 28 picocuries per gram in the ore as well). This level of radiological activity does not pose a threat to persons on a mine site. However, certain common sense precautions are worth noting. These precautions are similar to those used to prevent exposure to other trace elements in media being sampled, i.e., avoid inhalation and ingestion. The precautions include:

- Avoid breathing dusts;
- Do not eat and drink in dusty areas;
- Use proper hygiene techniques such as washing your hands prior to eating;
- Change clothing daily if clothing becomes soiled with ore. Note that clothing can be washed normally to remove the ore; and,
- If using a respirator, ensure that you keep the respirator clean.

2.3 PHYSICAL HAZARDS

Physical hazards associated with active mine sites as well as those associated with persons working out-of-doors in a mountainous terrain probably pose the greatest threat to field personnel on this project. The physical hazards that may be encountered will vary according to the type of site being investigated. Active mines pose hazards that are specific to mine operations, including the operation of heavy equipment, blasting, and the possibility of mine wall collapse. Large mine haul trucks may travel at relatively high rates of speed and pose a unique traffic threat to anyone traveling on mine haul roads. Railroad trains are also used at mines to haul ore to processing plants and pose railroad crossing hazards. Field personnel working on or around mine traffic areas should be especially mindful of mine-related traffic and mine-specific traffic rules.

Mine wall collapse could also occur at inactive mine sites. At some of the older mines, driving or walking near a high wall may pose a significant hazard, as well. Field personnel are required to wear hardhats and safety glasses whenever they are in a mine pit, near a high wall, or any other situation in which an overhead hazard may exist. Field personnel must be alert and aware of their surroundings. Therefore, prior to entering an inactive mine site, MWH personnel must be cautious and aware of any potential instability that could lead to rock slides, the collapse of high walls, and other physical hazards. MWH personnel will also be acquainted with the signs of instability that could lead to rock slides, the collapse of high walls, and similar hazards. Additionally, field personnel will need to exercise caution at former underground mine sites, and avoid abandoned underground mining portals.

At other sites, hazards associated with collecting samples are likely to be minimal. Traveling by foot through, or collecting samples in, pasture land, cropland, or forest, possible hazards may be largely limited to slipping, tripping, and falling. It is important that proper footwear is always worn, and that care and common sense is always used while walking to and from stations. Safety glasses are also required while pulling soil and vegetation samples due to the possibility of dust or other debris blowing into the eye. While hiking to and from a sample location, it is also a good idea to wear eye protection to protect from tree branches and other eye-level hazards.

Travel to remote areas engenders additional hazards specific to the method of travel. Hazards associated with foot travel include muscle strains and sprains, dehydration, heat or cold stress, and slips, trips, and falls. If a sample location cannot be reached by vehicle, and a significant hike is required, precautions must to be taken to ensure that field personnel are properly protected from the weather, whether it is heat stress or cold stress. Hazards associated with vehicle transport include flat tires, getting stuck, and other vehicular malfunction. It is essential that both the vehicle operator and vehicle passengers are cautious and observant of on/off road obstacles and dangers. Operator and passengers should also carry a 2-way radio and cell phone or satellite phone (if available) with them at all times, and know how to change a flat tire on the vehicle.

Travel in remote areas can also pose hazards that are best addressed by knowledge of wilderness safety, by safe operation of equipment, and through awareness of methods for handling contact with animals. Specific hazards associated with travel in remote areas are listed in Appendix A, *Activity Hazard Analysis*, together with recommended practices and procedures to minimize risks to MWH and subcontractor field personnel. Table 2-2, *Ten Essentials for Wilderness Travel* lists the ten essential items that field personnel should always have with them when working in remote areas.

TABLE 2-1
OCCUPATIONAL EXPOSURE LIMITS AND TOXICOLOGICAL PROPERTIES FOR POTENTIAL CHEMICAL EXPOSURE HAZARDS

Contaminant	OSHA PEL (mg/m^3)	NIOSH REL (mg/m^3)	ACGIH TLV (mg/m^3)	ACGIH/OSHA STEL	OSHA/NIOSH IDLH (mg/m^3)	IP (eV)	Route of Exposure	Symptoms of Exposure
Cadmium	0.005 (see 29 CFR 1910.1027)	Ca (lowest feasible)	0.01 & 0.002 (respirable fraction)	NA	50	NA	INH, ING	Pulmonary edema, dyspnea, cough, chest tightness, pain, headache; chills, muscle aches; nausea, vomiting, diarrhea; emphysema, mild anemia
Fluoride, as F	2.5	2.5	2.5	NA	500	NA	INH, ING, CON	Eye irritation, respiratory system, nausea, abdominal pain, diarrhea, excessive saliva, thirst, and sweat.
Molybdenum (soluble compounds as Mo)	5	NA	0.5 (respirable fraction)	NA	NE	NA	INH, ING	In animals: irritant to eyes, nose and throat; anorexia; diarrhea; weight loss; listlessness; liver and kidney damage.
Nickel (soluble compounds as Ni)	1	0.015 (Ca)	0.1	NA	10 (Ca)	NA	INH, ING, CON	Headache, vertigo; nausea, vomiting, epigastric pain, substernal pain; cough, hyperpnea; cyanosis; weakness; leukocytosis, pneuitis; delirium, convulsion.
Selenium	0.2	0.2	0.2	NA	NA	NA	INH, ING, CON, ABS	Irritant to eye, nose and throat; visual disturbance; headache; chills, fever; dyspnea, bronchitis; metallic taste, garlic breath, gastro-intestinal disturbance; dermatitis; and skin, eye burns.
Vanadium (as Vanadium pentoxide)	0.5	0.05	0.05	0.5 (ceiling value)	1	NA	INH, ING, CON	Irritant to eyes; green tongue, metallic taste, eczema; cough; fine rales, wheezing, bronchitis, dyspnea; irritant to the throat
Zinc	NA	NA	NA	NA	NA	NA	INH	Sweet, metallic taste; dry throat, cough; chills, fever; tight chest, dyspnea, rales, reduced pulmonary function; headache, blurred vision; muscle cramps, low back pain; nausea, vomiting; fatigue, lassitude and malaise

ACGIH-American Conference of Governmental Industrial Hygienists
Ca-NIOSH considered carcinogen
CFR-Code of Federal Regulations
CON-Skin or mucous membrane contact
eV-Electron volts
IDLH-Immediately dangerous to life or health
ING-Ingestion
INH-Inhalation
IP-Ionization potential
NA-Not applicable or available
NE-Not established
NIOSH-National Institute of Occupational Safety and Health
OSHA-Occupational Safety and Health Administration
PEL-Permissible exposure limit
REL-Recommended exposure limit
STEL-Short term exposure limit
TLV-Threshold limit values

Table 2-2 Ten Essentials for Wilderness Travel		
To Find Your Way	**For Your Protection**	**For Emergencies**
Map of the area **Compass and/or GPS(with sufficient backup battery)** Flashlight or headlamp	Sunglasses Extra food and water Extra clothing	Waterproof matches Candle, fuel tablets, or other long–burning fire starter Pocket knife First aid kit

2.4 BIOLOGICAL HAZARDS

Biological hazards that could potentially be encountered at hazardous waste sites may include snakes, spiders, ticks, fleas, poisonous/irritating plants such as poison oak and poison ivy, and micro–organisms such as the hantavirus.

Field personnel should be aware of their surroundings and avoid contact with snakes and insects. Snakes, spiders, and fleas typically occupy cool, dark, moist areas. The possibility of an encounter most frequently arises when reaching into dark, covered places. Suggestions for controlling the risks associated with snakes and insects include using a long stick to break apart webs or to remove soil cover from sheltered areas. A flashlight should also be used to inspect dark cavities before reaching into them.

Poisonous plants such as poison ivy and poison oak grow wild in dark, moist areas, and at the base of or around seedling and adult trees. Some individuals are prone to skin rashes on contact with the oil from certain plants. A visual site inspection and identification of possible poisonous plants should be completed prior to each shift so that assigned personnel are aware of the potential for exposures.

The Center for Disease Control in Atlanta, Georgia has established a hotline for inquiries regarding the hantavirus, at (800) 532-9929. Hantavirus has resulted in several deaths in the western part of the United States. While there may not have been any outbreaks or notices of the virus at a given project site, field personnel should be aware of the exposure route for the hantavirus and potential control methods. The hantavirus is transmitted through atmospheric dispersion of dried rodent excreta. The disease associated with the hantavirus begins with one or more symptoms that may include fever, muscle aches, headache, and cough. The disease progresses rapidly to a severe lung disease that often requires intensive care and treatment.

It is not expected that MWH field personnel will encounter biological hazards during the course of the waste dump investigation, except perhaps in the more remote areas covered by the survey (i.e. background dump). Possible biological hazards, as identified in the Activity Hazard Analysis in Appendix A, may include poisonous snakes, spiders, and plants such as poison oak, and wild animals such as big game and even wolves.

As a matter of courtesy, field personnel should obtain permission from private landowners prior to entering private lands and immediately close any gates opened in order to access sampling stations and when leaving such stations to make sure that livestock do not inadvertently escape.

3.0 ASSIGNMENT OF RESPONSIBILITIES

Implementation of the Health and Safety Plan will be accomplished through an integrated effort of the following personnel:

Table 3-1: Project Health and Safety Program Contact List

Company or Agency	Contact	Title	Telephone
P4 Production	Barry Koch	Special Project Lead—Mining / Program Manager	208-547-1439
	Paul Stenhouse	Environmental Regulatory Specialist	208-547-1294
MWH	Howard Lee	Vice President-in-Charge	425-602-4000
	Cary Foulk	Project Manager	970-879-6260
	Bill Wright	Senior Advisor	425-602-4000 / cell: (b) (6)
	Jack Storace	Regional EH&S Manager	925-627-4734 cell: (b) (6)
	Colin Duffy	Program Safety Officer (PSO) and On-site Safety Officer (OSO)	425-602-4000
	Dean Brame	Field Team Leader (FTL) and Quality Manager	425-602-4000
	Randy Walsh	Technical & Field Personnel	970-377-9410
	Bryan Massey	Field Personnel	425-602-4000
	Suzanne Anderson	Field Personnel	425-602-4000

Figure 3-1 presents the complete program organizational structure including responsibilities under the program health and safety program. The roles of the key individuals from the preceding table are discussed further in the following paragraphs.

3.1 VICE PRESIDENT-IN-CHARGE

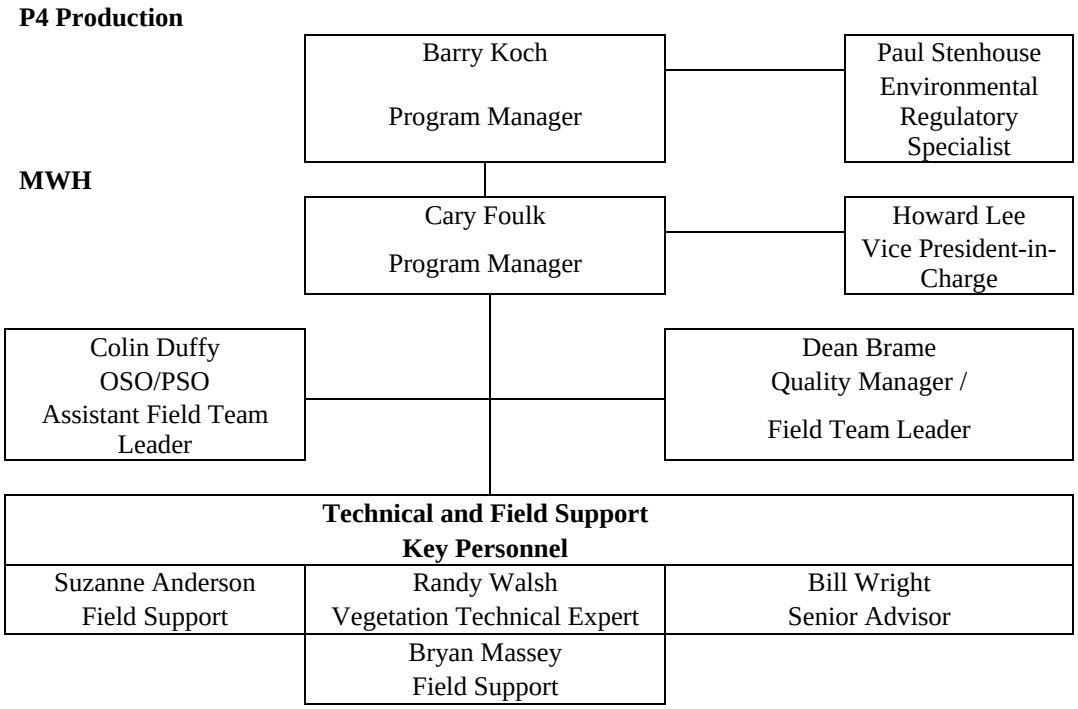
As the senior management representative for the program, the Vice President-in-Charge is responsible for defining program objectives, allocating resources, establishing the management organization, and evaluating program outcomes. The Vice President-in-Charge, working through the assigned MWH Program Manager, is ultimately responsible for:

- Providing the facilities, equipment, and budget needed to perform work safely;
- Ensuring adequate personnel and schedule for safe operations;
- Ascertaining appropriate review and distribution of health and safety documents;
- Supporting the efforts of program and field personnel; and,
- Applying appropriate disciplinary action for unsafe acts or practices.

3.2 PROJECT MANAGER

The Project Manager has overall responsibility for the safe performance of project activities. If a health and safety issue develops in the course of performing the contract that requires consultation with the client, the Project Manager is responsible for contacting the appropriate client representative and obtaining agreement on necessary actions, and for providing project personnel with suitable guidance.

Figure 3-1
Health and Safety
Program Organization
Chart



3.3 PROGRAM SAFETY OFFICER

The PSO shall:

- Work with the OSO to implement the requirements of this Health and Safety Plan.
- Be available for consultation with the Project Manager, FTL, and the OSO during the course of field work covered by this Health and Safety Plan.
- If needed, conduct periodic inspections of field activities to evaluate the effectiveness of the health and safety program and compliance with the Health and Safety Plan.

- Be responsible for the preparation of and any subsequent amendment to the Health and Safety Plan.

- Consult with the Project Manager as necessary prior to approving changes to the Health and Safety Plan.

- Coordinate modifications to the Health and Safety Plan with the OSO.

- Prepare the materials to be used for project-specific health and safety training.

The PSO is also responsible for the following:

- Ensuring that health and safety documentation conforms to applicable federal, state, and local health and safety requirements.

- Ensuring that medical monitoring, incident reporting, and health and safety recordkeeping conform to applicable federal, state, and local requirements.

- Overseeing project-specific employee training and medical surveillance.

3.4 ON-SITE SAFETY OFFICER

The MWH OSO has the responsibility and authority to halt or modify any activity or to remove personnel from the site if he or she considers conditions to be unsafe. Additionally, the OSO shall:

- Be responsible for implementing the requirements of this Health and Safety Plan.

- Maintain current certification in cardiopulmonary resuscitation (CPR) and first aid.

- Ensure that field personnel understand and comply with safety requirements, as outlined in this Health and Safety Plan.

- Ensure that a copy of the Health and Safety Plan accompanies each sampling team.

- Coordinate with the PSO, FTL, and Project Manager to address any unanticipated conditions that develop during the course of field activities.

- Coordinate with any subcontractor-designated OSO to resolve unsafe behavior and unsafe conditions posed by subcontractor personnel.

- Be responsible for dismissing subcontractor personnel when resolution of unsafe acts and conditions cannot be reached.

- Obtain approval of amendments to the Health and Safety Plan from the PSO before implementing any deviations from stipulated health and safety procedures.

- Provide the field personnel with the JRA worksheets and review them daily during tailgate safety meetings.
- Conduct and document daily safety debriefing meetings and inform team leader of any accidents or near hit/misses.
- Be responsible for controlling the entries to and exits from sampling locations.
- Monitor on-site hazards and conditions.
- Monitor field personnel for signs of thermal stress and fatigue.
- Enforce the buddy system.
- Enforce procedures for personnel and equipment decontamination, as specified in this Health and Safety Plan.
- Know emergency procedures and evacuation routes, as well as the telephone numbers of the nearest ambulance service, local hospital, poison control center, fire department, and police department.
- Verify the route to emergency medical facilities, and ensure that route information is posted.
- Serve as the primary MWH contact during any on-site emergency.
- Direct responses to emergencies as outlined by emergency response plans (see Appendix B).
- Participate in accident/incident and near miss investigations.
- Ensure that personal protective equipment (PPE) specified for use in this Health and Safety Plan is available and is being used by project personnel.
- Ensure that equipment used for assessing health hazards is calibrated and maintained in good working order.
- Periodically inspect protective clothing, as well as equipment used for assessing health hazards, for defects and signs of wear.
- Inspect and maintain first-aid kits and other emergency supplies.
- Confirm with the PSO or the responsible subcontractor official the ability of each individual assigned to field activities to perform site work, and maintain a file of current training and medical surveillance certificates.
- Enforce written medical restrictions for field personnel, as necessary.

3.5 FIELD TEAM LEADER

The FTL is responsible for assembling and managing the field personnel and field equipment during the sampling event. He should thereby assist the OSO in looking out for unsafe equipment and procedures. The FTL is also responsible for managing the sampling schedule and determining what team members sample what location or perform what task. There may be an occasional task or sampling location is more difficult to undertake, or reach, than others. It is therefore be the responsibility of the FTL to delegate tasks responsibly, keeping safety in mind. The FTL is responsible for sending, via email, a daily field report to the P4 Production Program Manager. Thus it is the responsibility of the FTL to discuss with the OSO any incidents so that the FTL can include this in his/her daily report.

3.6 FIELD PERSONNEL

Field personnel are also responsible for understanding and complying with the requirements of this Health and Safety Plan, and are required to sign an acknowledgment to that effect. Field personnel are also responsible for bringing perceived unsafe conditions, accidents, or near hits/misses to the attention of the FTL and OSO during each daily safety debriefing meeting, or sooner if conditions warrant. During the daily tailgate safety meetings, any subcontractor personnel who will be providing services shall inform the rest of the field team of any additional hazards posed by their procedures or the operation of their equipment.

3.7 SITE VISITORS

Visitors, including MWH and subcontractor management or staff, regulatory agency personnel, or client personnel, may be present at the project site during field activities. Visitors can most likely be accommodated by providing a general viewing area at a safe location that will not contribute any cross contamination. The OSO can provide a brief overview of the field activities to any site visitors.

If unannounced visitors request access to a project site, the OSO shall inform the appropriate client representative to obtain permission or denial of access.

4.0 PERSONNEL TRAINING

Individuals assigned by MWH to complete field work in the Southeast Idaho Phosphate Resource Area will, as appropriate, be required to meet the general site worker standards of this Plan including the training requirements described below.

4.1 INITIAL SITE-SPECIFIC HEALTH AND SAFETY TRAINING

Site-specific health and safety training will be provided by P4 to MWH employees charged with completing the field assignments as part of this investigation. This site specific safety attempts to encompass all hazards that may be encountered at any of the P4 mines. This training also contains a vehicle safety checklist that must be passed before driving on the premises is allowed. This training document is attached herein as Appendix H, *Monsanto Contractor/Guest ES&H Site Guidelines*. P4 also requires contractors to complete a pre-Job Risk Analysis (JRA) worksheet for each individual job the contractor performs. JRAs are meant to bring to light the potential hazards and risks associated with each job. A blank JRA worksheet is attached herein as Appendix E. Furthermore, N.A. Degerstrom Inc., the contracted on-site mining operator, requires that all users of the haul roads at the site, be trained in haul road safety. A copy of the Degerstrom training document is attached herein as Appendix H, *Degerstrom Ore Haulroad Travel Requirements*.

P_4 Production's three mine sites, as well as associated surface water features that drain these mine sites, form the study area for the project for which this health and safety plan covers. A specific map of the project area is located in the Field Sampling Plan.

On the basis of available and extensive information, MWH has demonstrated that the work being conducted under this plan does not involve the reasonable possibility for employee exposure to safety or health hazards attributable to hazardous substances. Furthermore, the waste rock, which is the source of contamination of interest, does not meet the four-prong definition of a hazardous substance per 29 CFR 1910.120(a)(3). Therefore, the training requirements of 40 CFR §1910.120 are not applicable to field personnel involved in the 2009 sampling efforts.

It is the responsibility of the OSO to review each area subject to sampling, prior to allowing a field team to enter the area, to ensure that none of the proposed sampling areas fall within the above-listed locations or activities. If a proposed sampling location or activity is determined by the OSO (or other informed person) to fall within one of the above-listed locations or activities, the OSO has the authority and responsibility to stop the proposed sampling activity until it is ascertained that the field personnel entering the area meet the requirements of 40 CFR §1910.120, including the appropriate level of HAZWOPER training.

Notwithstanding the above statements, MWH expects that all field personnel are familiar with, understand, and follow the health and safety requirements and guidance provided in this manual. Training will be conducted prior to job start-up, and as needed thereafter. The PSO, OSO, and/or the Program Manager will conduct the initial site-specific training to ensure that field personnel have a thorough understanding of this Health and Safety Plan, applicable standard operating procedures (SOPs), and the chemical, physical, and biological hazards that may be

associated with the investigation. This training will be repeated for new field personnel tasked with field assignments connected with the investigation, as well, prior to their undertaking any field work.

Topics that will be addressed in the initial site-specific health and safety training will include the following:

- Names of employees and others responsible for project safety and health.
- Employee rights and responsibilities under OSHA.
- The Health and Safety Plan, including the medical surveillance program.
- The acute and chronic effects of exposure to hazardous substances that may be encountered during field activities; the potential routes of exposure and symptoms of exposure for these substances; the PELs and IDLH concentrations assigned to these substances; and the level of personal exposure that can be anticipated.
- Likely physical hazards such as slipping, tripping, or falling; noise; electrocution; being struck; or being caught in or between moving equipment.
- Site control measures, including procedures for chemical handling, spill containment, decontamination, fire prevention, and any SOPs prepared specifically for the project.
- Hazard communication (per the requirements of 40 CFR § 1910.1200).
- PPE, and the action levels for upgrading PPE and for evacuating work sites.
- Engineered controls, such as dust suppression techniques adopted for this project.
- Emergency procedures and equipment.
- Any procedures adopted for air monitoring, including the functions, limitations, use, and maintenance of monitoring equipment.
- Proper use of heavy equipment and machinery, as applicable.
- Personal cleanliness and restrictions on eating, drinking, and smoking at the job site.
- Heat and cold stress prevention, monitoring, and treatment.
- Contractor injury and illness prevention programs, if applicable.

Employees will also be instructed in the use of the buddy system. The buddy system will be used whenever employees are collecting samples from active or inactive mine sites, or from waste rock dumps. The buddy system is a method of organizing work groups so that an individual is always available to provide his or her partner with assistance in an emergency; to

monitor his or her partner for signs of chemical or physical exposure; to periodically check that his or her partner's PPE is functioning properly; and to notify emergency response personnel if an emergency occurs. The buddy system usually requires that two or more people maintain visual contact while working. However, the buddy system can employ radio contact if site conditions are such that a person could otherwise work alone. In order to deviate from the buddy system, the PSO will require an explanation of the specific task to be completed, along with a procedure for assuring that a single person work party is safe.

Prior to collecting samples from active mine sites, personnel will be provided with site-specific safety training furnished by the mine operator. P4 will provide site specific hazard training to all contracted employees (see Appendix G). Note that activities that will be conducted during the investigation do require the MSHA 24-hour training specified under 30 CFR 48.21 through 48.30. MWH personnel conducting field work must complete the training before assignment.

The OSO will maintain documentation that each site worker has successfully completed the initial site-specific training and any additional safety training furnished by a mine operator at an active mine site.

4.2 TAILGATE SAFETY MEETINGS

Tailgate safety meetings will be conducted by the OSO each day field activities take place. This meeting will review the JRAs for the applicable jobs, cover site activities, changes in site conditions, other activity-specific health and safety issues, and include a review of pertinent topics detailed in the initial site-specific health and safety training. Field crew will also be informed of the availability of emergency assistance, as well as the most probable route of evacuation from a site, should an evacuation become necessary.

A daily safety debriefing will also be conducted at the conclusion of every work day. At which, any unsafe working conditions or equipment and any incidents or near hits/misses must be discussed and documented. The OSO must inform the FTL of any incidents.

4.3 BLOODBORNE PATHOGENS AND FIRST AID/CPR

Personnel assigned to conduct field work for this project do not conduct first aid or CPR as a primary job function. Rather, selected employees (e.g., the OSO) have been trained in first aid and CPR for application in an emergency only. Acting in the capacity of a designated emergency first aid provider is not mandatory, and anyone who is uncomfortable with the possibility of being so designated should notify the OSO.

4.4 DOCUMENTATION OF TRAINING

Written documentation verifying compliance with the training requirements of this section must be submitted to the MWH PSO or OSO prior to the beginning of field work or site access. Documentation of each worker's current training credentials will be kept by the OSO for review by authorized agency personnel.

5.0 MEDICAL SURVEILLANCE

Personnel who will be completing field assignments in support of the investigation on locations or involved in activities in which the requirements of 29 CFR § 1910.120 govern (see discussion in Section 4.1 of this Plan), must be participating in a medical surveillance program consistent with the requirements of that regulation. These requirements mandate that field personnel receive medical examinations prior to participating in hazardous waste site activities; annually; upon termination; following occupational exposure or injury; and additionally as needed, on a case-by-case basis.

The medical surveillance program required of each company that allows personnel to conduct field work at hazardous waste sites must be overseen by a licensed physician who is certified in occupational medicine by the American Board of Preventive Medicine, or, who by training and experience, is Board-eligible. When applicable, the MWH PSO will maintain copies of the physician's written authorization statements that employees conducting hazardous waste site operations are fit for hazardous waste site duty and are able to wear respiratory protection. No one shall be permitted to participate in hazardous waste site operations subject to these requirements until a copy of their medical certification is received by the MWH PSO. Copies of the physician's authorization for field personnel will be available to the field personnel upon request. Medical and exposure records will be retained for the length of the employee's employment, plus 30 years.

Field personnel will receive additional medical monitoring upon notifying the OSO, PSO, Program Manager or other authorized MWH personnel of symptoms consistent with over-exposure to site contaminants, or if the employee is injured or exposed to contaminants at concentrations in excess of a PEL during emergency response operations. Further medical examinations may be required before an employee returns to work after a serious illness or injury. Such examinations may be necessary to assure the employee's continued ability to carry out assigned duties. The need for these examinations will be determined by the MWH PSO, in cooperation with the occupational health physician representing the company. An injury or illness incurred by one of the field personnel, whether on or off the job, shall be reported to the PSO or OSO immediately. Such injury or illness may also require work restrictions when/after the employee returns to work. If the injury or illness required seeing a physician, either the attending physician or the physician giving the employment physical will be involved in deciding when the employee can return to work, and if any work restrictions will apply.

6.0 PERSONAL PROTECTIVE EQUIPMENT

6.1 PERSONAL PROTECTIVE EQUIPMENT

The Environmental Protection Agency (EPA) designations of Levels D, C, B and A for PPE are used to describe the general PPE ensembles that may be employed during hazardous waste site operations. These ensembles are depicted in Figure 6-1. Based on site contaminant information and established exposure limits, Level D has been selected as the level of protection appropriate for field personnel completing this investigation. Field personnel will also adhere to the requirements of individual mine operators when collecting samples at active and inactive mine sites. These requirements may include the use of hardhats, eye protection and steel-toed boots. It is the responsibility of the OSO and the OSO representing any subcontract personnel to ascertain the appropriate/required level of PPE for each mine site, communicate such findings to the field personnel, and to ensure that the field personnel are provided with the PPE in a timely manner.

PPE that will be employed for project field tasks and procedures is identified in the Activity Hazard Analysis in Appendix A. For activities undertaken during this project, personnel will incorporate the following into the standard Level D ensemble:

Coveralls:	Personnel will wear a work uniform, including longs pants, and short-sleeved t-shirts, as a minimum.
Gloves:	Nitrile gloves are required when handling samples.
Hardhat:	Personnel will wear a hardhat when entering active and inactive mine pits to protect against rock fall and when visible from the haul road.
Safety Glasses:	Personnel will wear safety glasses when entering active and inactive mine pits and when visible from the haul road. They will also be worn during sample collection.

Once on site, the OSO and the OSO representing any subcontractor personnel will evaluate work conditions and adjust the level of PPE as necessary to properly protect field personnel and meet the local mine requirements. When specifying a PPE ensemble, the following will be evaluated:

- The local mine requirements;
- The anticipated site hazards that were used to select the initial PPE ensemble;
- The limitations of each piece of PPE;
- Work duration;
- The effect of temperature extremes on the PPE ensemble;
- PPE maintenance, storage, decontamination, and disposal requirements;
- Inspections of PPE completed prior to, during, and after use;
- Personnel training in PPE use and the need for fit-testing;

- Procedures for donning and doffing; and
- Evaluation of the effectiveness of the current PPE program.

Adjustments to the PPE ensemble will be communicated to field personnel via amendment of this Health and Safety Plan or during the tailgate safety meeting.

Level A Protection
Totally encapsulating vapor-tight suit with full-facepiece SCBA or supplied-air respirator.

Level B Protection
Totally encapsulating suit does not have to be vapor tight. Same level of respiratory protection.

Level C Protection
Full-face canister air purifying respirator. Chemical protective suit with full body coverage.

Level D Protection
Basic work uniform, i.e. longsleeve coveralls, gloves, hardhat, boot, faceshield or goggles.

SAMPLE PROTECTIVE EQUIPMENT ENSEMBLES
FIGURE 6-1

LEVEL D PERSONAL PROTECTIVE EQUIPMENT

Level D protection may be used when the following conditions are met:

- Substances that pose inhalation hazards are not present above individual or combined PELs.
- Oxygen is present at a minimum concentration of 19.5 percent.
- Toxic organic compounds are not present in the air space at concentrations that exceed normal background concentrations or specified action levels requiring use of respiratory protection.
- Work functions preclude splashes, immersion in, unexpected inhalation of, or direct contact with hazardous concentrations of harmful chemicals.

Level D protective equipment shall consist, at minimum, of the following:

- Dedicated work uniforms with long pants and short-sleeve shirt.
- Steel-toed and shank leather, PVC, or rubber safety shoes or boots meeting the specifications of American National Standards Institute (ANSI) Z41.
- Safety glasses, goggles, face shield, or other approved eye protection.
- Hardhat, unless specifically stated otherwise.

The dedicated work uniforms may include chemical-resistant coveralls or standard Tyvek coveralls, or standard cotton or cotton blend work uniforms. Approved eye protection must meet the specifications of ANSI Z87.1. The use of contact lenses is discouraged, but not prohibited, during Level D operations. However, safety glasses or goggles that fit over prescription lenses or prescription safety glasses or goggles are recommended. Approved hardhats must meet the specifications of ANSI Z89.1. Hearing protection must have a noise reduction rating consistent with reducing the ambient noise level to below 85 dBA.

6.2 PPE STORAGE

PPE must be stored properly to prevent damage or malfunction due to exposure to dust, moisture, sunlight, damaging chemicals, extreme temperatures, and impact. Potentially contaminated PPE should be stored separately from new PPE and street clothing. Field personnel should always review the manufacturer's instructions for care and maintenance of PPE. PPE storage will be provided in the field by the OSO. However, each individual is responsible for ensuring that his or her issued PPE is protected from extremes of temperature, and is stored in a manner that prevents the PPE from becoming damaged or disfigured.

7.0 HAZARD ASSESSMENT

Because of the relatively low exposures that are expected during the investigation, no vapor or dust monitoring will be undertaken. However, personnel monitoring for heat and cold stress will be performed. Heat and cold stress will be monitored qualitatively, as described in the following paragraphs.

7.1 HEAT STRESS

The stress of working in a hot environment can cause a variety of illnesses, including heat exhaustion or heat stroke; the latter can be fatal. The use of PPE can increase heat stress significantly, although heat stress can overcome people wearing regular, permeable work clothing, as well. To reduce or prevent heat stress, frequent rest periods and the intake of salts and liquids to conserve and replace body fluids may be necessary.

Personnel should recognize the symptoms of heat stress, and take appropriate action on recognition. Some of the symptoms that indicate heat exhaustion are:

- Clammy skin
- Lightheadedness
- Slurred speech
- Rapid pulse
- Weakness, fatigue
- Confusion
- Fainting
- Nausea (vomiting)

If these symptoms are noted, the following steps should be taken:

- Remove the victim to a cool and uncontaminated area;
- Remove protective clothing; and
- Give water to drink, if conscious.

Symptoms that indicate heat stroke include:

- Staggering gait
- Hot skin, temperature rise (yet may feel chilled)
- Incoherent, delirious
- Mental confusion
- Convulsions
- Unconsciousness

If these symptoms are noted, the following steps should be taken:

- Remove victim to a cool, uncontaminated area;
- Cool the victim, whole body, with water, compresses and/or rapid fanning;
- Give water to drink, if conscious; and
- Transport the victim to the designated medical facility for further cooling and monitoring of body functions.

HEAT STROKE IS A MEDICAL EMERGENCY!

7.2 COLD STRESS

On days of low temperature, high wind, and humidity, anyone can suffer from the cold. Severe exposure to cold can be life threatening. Several factors increase the harmful effects of cold: being very young or very old, wearing wet clothing, having wounds or fractures, smoking, drinking alcoholic beverages, fatigue, emotional stress, and certain diseases and medications.

Cold weather injuries may be local or systemic. Local cold weather injuries include chilblains (chronic injury of the skin and peripheral capillary circulation) and frostbite. Frostbite occurs in three progressive stages: frostnip, superficial frostbite, and deep frostbite. Systemic cold injuries associated with hypothermia affect the entire body system. Hypothermia is caused by exposure to cold and is aggravated by moisture, cold winds, fatigue, hunger, and inadequate clothing or shelter.

Precautionary measures that will be taken to prevent or mitigate cold stress will include:

- Providing field shelters or wind screens.
- Monitoring temperature and wind speed to determine appropriate safety measures.
- Adjusting work schedule based on weather conditions and temperature.
- Providing insulated clothing for field workers.
- Adhering strictly to the buddy system so that workers can monitor for symptoms of cold stress in their co-workers.

7.2.1 Frostbite Monitoring

Frostbite is a potentially crippling condition that can occur when inadequately protected skin or body parts are exposed to freezing weather. Team members should continually be alert for signs of frostbite in co-workers, and bring any occurrences to the attention of the OSO. A cold feeling, pain, and numbness precede the onset of frostbite. Frostbite usually appears as gray or white waxy spots on skin. Areas most susceptible to frostbite are the nose, ears, and cheeks.

The following steps should be taken to avoid frostbite:

- Dress warmly;
- Wear layers of clothes;
- Keep boots and gloves loose-fitting;
- Stay dry;
- Carry extra clothing;
- Avoid touching cold metal with bare hands; and
- Avoid spilling cold fuel, alcohol, or other liquids that freeze below 32°F on your body or clothing.

If a person is frostbitten, get them to a hospital as soon as possible. If transport to a hospital is not immediately available, get the person to a warm shelter and immediately perform the following:

- Cover exposed areas with additional clothing;
- Wrap the person in blankets or a sleeping bag;
- Give the person warm, non-alcoholic drinks;
- Undress the frozen part and submerge the frozen part in a tub of warm water (102° F to 105°F), or put the frostbitten person in a large tub of warm water, if available, and stir the water;
- Warm with skin to skin contact, such as placing warm hands on frozen nose or ears, (but do not rub); and
- Get the person to a hospital as soon as possible.

Do not rub the frozen part; do not give the person liquor; do not allow the person to walk on thawed feet; do not let the person smoke; do not break any blisters that may form; do not let the thawed part freeze again; and do not warm the frozen part in front of a source of dry heat, such as an open fire or oven.

7.2.2 Hypothermia Monitoring

Hypothermia is a lowering of the body's temperature due to exposure to cool or cold temperatures. Field personnel should be continually alert for signs of hypothermia in co-workers, and bring any signs of hypothermia to the attention of the OSO. Most cases of hypothermia occur at temperatures between 30°F and 50°F. Hypothermia is a medical emergency: if not properly treated, hypothermia can cause death. Safety equipment for hypothermia should include a synthetic sleeping bag and a hypothermia thermometer. Personnel suffering from hypothermia should be transported to a hospital as soon as possible, even if they appear to be recovering.

To prevent hypothermia:

- Eat well prior to exposure;
- Dress warmly; and
- Avoid becoming wet through sweating, rain or snow, or falling in water.

Early signs of hypothermia may include violent shivering, slurred speech, a loss of coordination, confusion and an inability to answer simple questions, unusually irritable or strange behavior, or a tendency to drop or lose clothing or equipment. As hypothermia progresses into more serious stages, the victim typically develops trouble seeing clearly, becomes sleepy and numb, and begins to move with difficulty. Eventually, the victim will lapse into unconsciousness if not properly cared for.

The following actions should be taken to treat a hypothermia victim:

- Get the victim to a warm, dry shelter as soon as possible;
- Remove any wet or cold garments and dry the person thoroughly; and

- Wrap the victim in blankets, sleeping bags, or dry clothing to prevent more heat loss.

If a warm area is not available, build a shelter and put the victim in the warmest, driest area available. Remove any wet or cold garments, and have one or more persons remove their clothing and lay next to the victim, providing skin to skin contact. Then, wrap the victim and rescuers in dry warm blankets, sleeping bags, or clothing. When the victim becomes conscious, place warm objects along the victim's sides to warm vital areas. When the victim is able to swallow easily, provide warm, sweetened drinks and food, preferably candy or sweets. Do not give the victim alcohol or allow the victim to smoke; do not rub the victim's skin; and keep checking the victim and providing additional assistance as needed.

8.0 SITE CONTROL

Site control is an important part of a field health and safety program. The purposes of site control are to minimize potential worker exposures, protect the public from site hazards, and prevent vandalism of site facilities. Site control procedures that will be implemented during the waste rock dump investigation, which are discussed in this section, consist of site security controls and communication systems.

While undertaking site activities, personnel may forget or ignore provisions of the Health and Safety Plan. Personnel who observe deviations from accepted safe work practices will tactfully remind the responsible individuals of proper procedures. However, under no conditions are deviations from safe work practices to be tolerated by anyone on site. If the deviation continues, the MWH OSO will be informed of the circumstances. The MWH OSO will attempt to correct the unsafe behavior or unsafe condition. Should this attempt fail, the MWH OSO shall halt site activities and dismiss the non-cooperative personnel.

8.1 MULTIPLE-EMPLOYER JOB SETTING

Enforcing safe work practices at a multiple-employer job site presents many challenges. Under OSHA, each employer is required to provide a safe and healthful working environment for its employees. Most hazardous waste sites require several contractors to work simultaneously on different project tasks. In this situation, the activities of one company could create hazards for the employees of another company. It is not possible to anticipate every hazard associated with activities at a multiple-employer job site in a Health and Safety Plan. The OSO must discuss particular safety and health issues that may be associated with each day's activities at the daily tailgate safety meeting.

8.2 SITE SECURITY

Existing site controls that are likely to be encountered during the course of the investigation will vary from no controls to strict property perimeter controls. When possible, client personnel will be requested to investigate any suspicious activities at the field sites. In some cases, an independent security watch may be needed. Security at the sites will be the responsibility of the client during periods of inactivity, including weekends. To maintain security at the sites during working hours, the OSO will:

- Control site entrances and exits as necessary through the installation of appropriate safety barricades, signs, and/or signal lights.
- Establish a personnel identification system.
- Be responsible for enforcing entry and exit requirements.
- Utilize temporary fencing to control site access, where feasible.

- Post warning signs around the perimeter of the work area, should the use of temporary fencing not be feasible.

To maintain security during nonworking hours, the OSO will secure the site prior to leaving at the end of a working day and equipment and supplies will be secured or stored in locked facilities.

8.3 COMMUNICATION SYSTEMS

Two general types of communication systems should be available for workers assigned to field projects. One system will ensure adequate communication between field personnel, and the other will ensure the ability to contact personnel and emergency assistance off site. Internal communication will be used to:

- Alert team members to emergencies.

- Pass along safety information, such as weather conditions that could affect heat stress, cold stress or general safety.

- Maintain site control.

- Facilitate site work by being able to call the appropriate party for information without having to decontaminate the work party and equipment and secure the site.

Verbal communication can be impeded by background noise and limitations imposed by PPE. It is therefore vital that pre-arranged signals of communication be arranged prior to the initiation of site activities, particularly when heavy equipment may be operating in the vicinity. Common types of internal communication devices include:

- Radios;
- Noisemakers such as compressed air horns, megaphones, sirens, and whistles; or,
- Hand and arm signals.

External communication systems between on-site and off-field personnel are necessary to:

- Coordinate emergency response efforts,
- Report to upper management about site activities, and
- Maintain contact with essential off-field personnel.

The primary means of external communication are telephones, radios, facsimile machines, and computer networks.

9.0 DECONTAMINATION PROCEDURES

Decontamination procedures are implemented to prevent cross-contamination of samples, to control possible migration of site contaminants to clean areas, and to prevent personnel exposure to chemicals or pathogens that may contaminate clothing or protective gear. Personnel conducting field activities must decontaminate upon the completion of these activities**.** Additionally, before demobilization, equipment will be decontaminated before it is moved. Any material that is generated by decontamination procedures will be labeled and stored until final disposal arrangements are made.

9.1 GENERAL DECONTAMINATION PROCEDURES

Decontamination procedures shall be supervised by the OSO. The type of solution to be used for equipment decontamination is specified in the Field Sampling Plan. Personnel decontamination will be accomplished using ordinary soap and water or an alcohol based hand sanitizer. Personnel will be required to wash or sanitize their hands, and optionally their faces before eating or drinking, unless specific procedures are in place to ensure that a drink can be taken without the possibility of contamination. Personnel may also be required to wash or sanitize their hands, and optionally their faces, before leaving the work site. Decontamination solutions will be changed daily at a minimum.

The following decontamination procedures and guidelines shall be implemented:

- Disposable protective clothing will be used when possible to eliminate the need for decontaminating clothing.
- Decontamination procedures will be designed to prevent or minimize direct contact with waste materials.
- Disposable protective clothing and contaminated material will be collected in plastic sacks and disposed of appropriately.

9.2 DECONTAMINATION WASTE HANDLING AND DISPOSAL

Wastes generated as a result of site activities will be handled in accordance with applicable environmental regulations. Investigation-derived wastes and contaminated site materials will be handled and disposed of in accordance with the provisions of the Field Sampling Plan or client specifications. Unless, specifically stated, personnel are to treat decontamination wastes as part of the investigation derived wastes.

10.0 EMERGENCY RESPONSE PLANNING

The objective of this Health and Safety Plan is to minimize exposure to chemical, biological, and physical hazards, and to prevent work-related illnesses and injuries. Emergency response planning is included as part of this plan to provide procedures for responding to emergencies that may occur. This section contains information on how to deal with emergencies. It is not the purpose of this Health and Safety Plan, however, to provide guidance for emergency response as part of field operations. Field personnel are instructed to assess emergencies and make the appropriate notification to emergency responders. **Under no circumstances are field personnel to take emergency response actions for which they are not properly trained.**

The MWH OSO will serve as the primary MWH contact during any on-site emergency. The OSO will be responsible for making the appropriate notifications, directing responses to emergencies until relieved by a qualified Incident Commander. As part of his or her duties, the OSO will be required to know emergency procedures and evacuation routes, as well as the telephone numbers of the nearest ambulance service, local hospital, poison control center, fire department, and police department. The OSO will also be responsible for verifying the route to emergency medical facilities, and ensuring that route information is posted and available to field personnel. Emergency telephone numbers and maps showing the locations of the hospitals and emergency clinics capable of providing emergency service for hazardous waste field personnel are provided in Appendix B. Telephone numbers for the Poison Control Center, local Police and Sheriff's Departments, local Fire Departments, including the emergency rescue squad, the Office of Emergency Services, MWH management, and client contacts also are included. Copies of the hospital route maps provided in Appendix B will be kept in site support vehicles; and field personnel will become familiar with the routes and the travel times involved.

The OSO shall immediately notify the Program Manager of the following:

- Any required site evacuation prompted by air monitoring data;
- Any fatality or injury to one or more field personnel that requires medical attention; and
- Any physical hazard creating the potential for death or permanent injury.

Vehicles that can be used to transport injured personnel from work sites will be available during working hours. A system will also be available on site for communicating with off-site personnel. On-site communication systems may include cellular phones, two-way radios, or other suitable devices. Additionally, first aid supplies and potable water will be available at every site for emergency use.

Cellular phones may not always be operable in remote areas. Thus, when entering remote areas field personnel will file their anticipated itinerary with the FTL. The itinerary will include where the field team expects to be, the travel route, and the expected time of return. The field team will notify the FTL upon their return. If the sampling team leaders do not hear from a field team by an agreed-upon time, the FTL will initiate search and rescue operations. In addition, the FTL

will attempt to call the P4 Program Manager daily to report on the daily activities, any health and safety issues encountered, and the expected itinerary for the next day.

Prior to the start of work, project personnel will be acquainted with established emergency response procedures and equipment. Furthermore the OSO will be certified to render first aid and CPR prior to commencement of field activities. The buddy system will be used when working in remote areas, near significant waterways, or in active or inactive mine pits. The buddy system will not be required while collecting samples in agricultural areas when cellular phone contact is available.

At each work site, evacuation routes will be clearly communicated to project workers who will enter a work area or CRZ. Evacuation routes from each work site will also be discussed during tailgate safety meetings prior to the start of work. A safe place of refuge where a headcount can be completed following an emergency evacuation will be identified at each work site. An unexpected vapor release, fire, or explosion will cause associated site work to cease and prompt an immediate evacuation.

Accidents, safety-related incidents, and safety-related near misses will be documented and reported to the MWH EH&S Department, PSO, OSO and Program Manager on a daily basis at a minimum.

See Appendix E for incident reporting forms and procedures.

11.0 HEALTH AND SAFETY DOCUMENTATION

Documentation of personnel credentials, site activities, and environmental monitoring will be maintained by the OSO during field activities and by the PSO thereafter. Examples of some of the forms that may be employed for documenting compliance with the MWH health and safety program and this Health and Safety Plan are presented in the appendices. The MWH PSO or designated OSO will maintain and update these documents. Appropriate regulatory agency personnel shall be granted access to these records.

Unanticipated field conditions may occasionally require temporary modification of this Health and Safety Plan. Client notification and approval procedures will depend on field conditions and nature of the modification. Any upgrade to PPE will be reported in an updated JRA worksheet. Minor changes to the Health and Safety Plan to accommodate on-site conditions can be implemented by the OSO upon review and approval of the PSO; such changes might include minor revisions to decontamination or site control procedures. Permanent changes to this HSP must be approved by the MWH Regional EH&S Manager as listed in table 3-1.

12.0 GENERAL SITE SAFETY

The health and safety program contained in this portion of each MWH Health and Safety Plan has been developed in accordance with relevant occupational safety and health regulations and requirements, and applies to field sites and workplaces. Because this section is intended to be applicable to a wide range of sites and conditions, there may be information in this section that applies to certain areas of the country only.

The following practices are expressly forbidden during site work:

- Smoking, eating, drinking, chewing tobacco, or applying cosmetics while taking samples or while near exposed samples.
- Contact with potentially contaminated substances; walking through puddles or pools of liquid; kneeling on the ground; or leaning, sitting, or placing equipment on contaminated soil.
- Performance of tasks without a buddy; personnel will be required to use the buddy system unless specifically exempted elsewhere in the Health and Safety Plan.

Personnel must keep the following guidelines in mind when performing field activities:

- Hazard assessment is a continuous process. Personnel must be aware of their surroundings and the chemical and physical hazards that are present.
- Field personnel will be aware of the physical characteristics of each site, including site access, the location of overhead power lines and underground utilities, wind direction, and the location of communication devices and safety equipment.

12.1 GENERAL HEALTH AND SAFETY PROGRAM ELEMENTS

12.1.1 Hazard Communication Program

MWH has a written Hazard Communication Program. This program appears as MWH H & S Policies Procedure No. 1000. A copy of this will be available to field personnel. As necessary, the hazard communication program of subcontractors also will be solicited for use as a project reference. MWH and subcontractor field personnel will be made aware of the MWH Hazard Communication Program and have access to MSDSs for chemicals brought to any field site. MWH will be responsible for supplying MSDSs and each field team will have them in their possession when in the field.

12.1.2 Sanitation

Work breaks, eating, drinking, and paperwork tasks will be performed in the field vehicle or other suitable location away from sampling location. Field personnel will wash or otherwise sanitize their hands prior to eating or drinking.

The OSO is responsible for ensuring that an adequate supply of water is available at the site. During times of heavy labor and hot temperatures, it is recommended that approximately one liter of water per hour be ingested. Sport-type beverages also may be provided for field personnel. It is to be assumed that there is no potable water in the field. When decontamination procedures interfere with the ability of field personnel to obtain sufficient drinking water, personnel may drink water without prior personnel decontamination under the following stipulations:

- Water is dispensed from a cooler with a pull-lever pouring spout. Push-button pouring spouts are unacceptable, as dirty fingers can easily contaminate the pouring spout.

- Minimum three-inch tall disposable drinking cups must be used and discarded after each use.

- Drinking cups must be dispensed out of a plastic or metal dispenser attached to the cooler, allowing the bottom of the cup to be grabbed without touching the top rim.

Sleeping quarters will be arranged by MWH management when personnel must travel away from their home to work on site. Longer-term sleeping quarters will be equipped with shower and changing facilities.

12.1.3 Illumination

All site work will be done during daylight hours, with the exception of driving to and from the work site.

12.1.4 Standard Emergency Hand Signals

Team members should be familiar with the following emergency hand signals:

- Hand gripping throat: “Respirator problems, can’t breathe.”

- Grip team member’s wrist or place both hands around waist: “Leave site immediately; no debate!”

- Thumbs up: “OK, I’m all right; I understand.”

- Thumbs down: “No, negative.”

- Hands on face: “Put on respirator.”

12.1.5 Fire Protection

Field activities performed during the summer at this location could potentially result in a fire at the site. Cigarette smoking is expressly forbidden at any sampling location and should be done with care otherwise and butts need be put out and disposed of properly. Vehicles should be driving off road as little as possible. Low riding vehicles driving over tall stands of brush and grasses can easily spark a fire.

Electrical wiring will be free from frayed ends and sections, and hook-ups will be checked for loose fittings. Portable power tools will be connected to a ground fault circuit interrupter, and care will be taken to ensure that electrical connections do not exceed the maximum load capacity for any one circuit.

12.1.5.1 Wildfires

Wide open areas of natural brush present the danger of wildfires. Many project sites have structures that can provide enough of a fire break to prevent a wildfire from endangering field personnel, but such a structure does not provide absolute protection. The MWH OSO will therefore check regularly with the local fire department during the most common wildfire months of July through November. Should a wildfire threaten a work site, the MWH OSO will watch for changing conditions and evacuate and secure each active site, in accordance with local fire department instructions.

12.1.5.2 Fire or Explosion Response Action

The actions listed below are in a general chronological sequence. Conditions and common sense may dictate changes in the sequence of actions and the addition, elimination, or modification of specific steps.

Immediate Action. Upon detecting a fire/explosion, employees will notify the fire department and determine whether or not the fire is small enough to extinguish readily with immediately available portable extinguishers or water, or if other fire-fighting methods are necessary. Non-essential personnel will be directed away from the area of the fire. If it is judged that a fire is small enough to fight with available extinguishing media, employees will attempt to extinguish the fire provided that:

- They have been properly trained on the use of the specific fire extinguisher to be used.
- They are able to approach the fire from the upwind side, or opposite to the direction of the fire's progress.
- The correct extinguisher is readily available.
- No known complicating factors are present, such as likelihood of rapid spread, imminent risk of explosion, or gross contamination.

Personnel leaving a fire/explosion area will notify the fire department and will account for employees in that area as soon as possible. The OSO or designee will perform a head count of sampling team members.

Notification. The MWH OSO will be notified as soon as possible of the location, size, and nature of the fire/explosion. A member of the MWH management team will notify appropriate agency personnel in the event of a fire or explosion resulting in a release of a hazardous material to the environment. As conditions dictate, the OSO will declare an emergency, initiate the remedial procedures, request assistance from the fire department, and make the necessary on-site and off-site notifications. If assistance from the fire department is required, an escort appointed by the OSO will direct responders' vehicles over clean roads to the extent possible to limit contamination. Note: National Fire Protection Association (NFPA) guidelines call for notifying the fire department, even for small fires to ensure proper extinguishment.

Rescue. If employee(s) are unable to evacuate themselves from a fire/explosion area for any reason, their rescue will be the first priority of responders. The FTL and/or OSO will determine whether on-site resources are sufficient to proceed, or if rescue must be delayed until outside responders arrive. **Field personnel are not to take any actions which place themselves or other in danger and/or for which they have not been properly trained.**

Fire-Fighting Procedures. Planned fire-fighting procedures are described below. These apply to small fires that the project personnel are able to control.

Fire During Working Hours: In the event a fire occurs during working hours, the following measures will be taken to put out the fire provided the person is properly trained to do so. These measures are sequential, that is, if the first measure does not succeed in containing the fire, the next measure will be initiated.

- Use fire extinguishers
- Confirm that request for assistance from the fire department has been made
- Utilize earth moving equipment, foam unit, and water truck, as appropriate. Brush fires will be extinguished with water.

Fire During Non-Working Hours: In the event of a fire during non-working hours, existing alarms, site security (if applicable), or whomever from the project team is notified, will notify the MWH OSO or PSO. Additional actions will be consistent with procedures established for a fire during working hours.

Response Coordination. Upon arrival of outside responders from the fire department, the OSO will coordinate with the leader of the outside responders to direct fire-fighting activities; however, the control of the scene is now the responsibility of the leader of the outside responders.

Protection of Personnel. The primary methods of protecting personnel from fire conditions will be by distance and remaining upwind. Based on the conditions, the OSO will determine appropriate distances and the selection of personal protective equipment for field personnel.

Decontamination. At the conclusion of fire fighting activities, the OSO will:

- Determine to the extent practicable the nature of the contaminants encountered during the incident.
- Arrange for outside responders' fire response equipment, and on-site equipment as necessary, to be processed through decontamination, using methods appropriate for the contaminants involved.
- Equipment not easily decontaminated shall be labeled and isolated for further action, such as determining specific contaminants by wipe sampling or awaiting the delivery of specific decontamination media and supplies.

Fire Extinguisher Information. The four classes of fire, along with their constituents, are as follows:

Class A - Wood, cloth, paper, rubber, many plastics, ordinary combustible materials

Class B - Flammable liquids, gases, and greases

Class C - Energized electrical equipment

Class D - Combustible metals such as magnesium, titanium, sodium, and potassium.

Examples of proper extinguishing agents are as follows:

Class A - Water
Water with one percent AFFF Foam (wet water)
Water with five percent AFFF or Fluoroprotein Foam
ABC Dry Chemical
Halon 1211

Class B - ABC Dry Chemical
Purple K
Halon 1211
Carbon Dioxide
Water with six percent AFFF Foam

Class C - ABC Dry Chemical
Halon 1211
Carbon Dioxide

Class D - Metal-X Dry Chemical

No attempt should be made to extinguish a large fire. Large fires should be handled by the fire department. The complete area of the fire should be determined. If human life appears to be in danger, or the spread of the fire appears to be rapidly progressing, move personnel further upwind away from the fire. Do not attempt to extinguish even a small fire if you have not been properly trained to do so.

Use of Fire Extinguishers. Inspect the fire extinguisher on a monthly basis to ensure that the unit is adequately charged with extinguishing media. Do not store a fire extinguisher on its side. To use the extinguisher, follow the acronym PASS for instructions listed below:

1. **P**ull the pin on the top of the unit

2. **A**im at the base of the fire.

3. **S**queeze the handle on the top of the unit.

4. **S**weep the extinguishing media along the base of the fire until the fire is out. Ensure that the fire is fully cooled before assuming it is completely extinguished.

12.1.6 Earthquake and Disaster Preparedness

If an earthquake or natural disaster occurs during working hours and the magnitude is such that field personnel may be in danger, the MWH OSO will initiate the site evacuation procedure. This action is to be taken only if in the judgment of project personnel and/or OSO the earthquake is large enough to have potentially caused damage to any of the structures or equipment being used on the site. If the earthquake or disaster occurs during non-working hours, the OSO will determine whether safe entry onto sampling locations can be made, or if an inspection is needed first. If at any time the inspection team feels that they need the assistance of the fire department, the inspection shall cease until the fire department is able to assist. The inspection will be conducted using the buddy system. The team will look at structures, equipment, and any chemical storage areas for signs of cracks or deterioration. When assessing areas known to contain chemicals, appropriate air monitoring equipment will be used to ensure that leaks are detected quickly and without injury to the inspection team. When inspecting areas where chemical releases could have occurred as a result of a breach of containment, Level B PPE is recommended.

12.2 COMMON PHYSICAL HAZARDS AND CONTROLS

This section provides information concerning the common physical hazards associated dump sampling and recommended controls to minimize risk to field personnel. Section 2.0 and Appendix A list the physical hazards specific to this project.

12.2.1 Slip/Trip/Fall

Field personnel are to be vigilant in providing clear footing, clearly identifying obstructions, holes, or other tripping hazards and maintaining an awareness of uneven terrain and slippery surfaces. It is necessary that shoes providing more elaborate tread be worn to minimize slip, trip and fall hazards.

12.2.2 Heavy Lifting

During manual lifting tasks, personnel will remember to lift with the force of the load suspended on their legs and not their backs. They are to maintain a straight back and hold the object close to the body. Mechanical lifting devices or the help of a fellow field team member should be sought when the object is too heavy for one person to lift.

12.2.3 Motor Vehicle Hazards

Motor vehicle accidents can occur any time people drive. Field personnel are required to employ defensive driving techniques, and obey site speed limits and vehicle safety requirements. Accidents are to be reported to the MWH OSO. Working in an active mine area poses unique hazards to personnel whether in a vehicle or as a pedestrian. Mine equipment, especially haul trucks, are often large, may operate at relatively high rates of speed, often have limited visibility, and cannot stop or maneuver like over-the-road vehicles. Unique mine driving rules often apply within a local mine that are different from public road rules. Haul trucks within a mine area often have the right-of-way in every instance. Therefore, it is extremely important that while walking or driving within an active mine area, to be exceptionally alert to all traffic around you. When in doubt, yield the right-of-way. **Field personnel are required to wear seatbelts at all times when in a moving vehicle and the driver must refrain from using his/her cell phone.**

12.2.4 Sharp Edges and Pinch Points

During the course of this field work, it is feasible that personnel will encounter sharp edges and pinch points. Sharp objects may include site debris, field tools, equipment, or other objects. Pinch points are places where the hands may be caught between objects or moving parts. When danger of cuts to the hands or other body parts is probable, employees will either arrange paths where personnel may walk free of sharp edges, or ensure during the tailgate safety meeting that areas with known sharp edges are brought to the attention of the entire field crew. Heavy work gloves shall be used in conjunction with any chemical resistant gloves when handling sharp objects is required.

12.3 SEVERE WEATHER

While each project site will be subject to varying types of weather conditions, this section provides general information and controls on several types of severe weather.

12.3.1 Lightning

If a lightning storm is suspected or observed, site activities must be stopped, and site equipment must be evaluated for its potential for acting as a lightning rod. Personnel should wait indoors for the storm or lightning event to end. If the strike of lightning occurs and personnel are out in the field, the response should be to disband from one another and lay low to the ground by dropping to your knees and bending forward with your hands wrapped around your knees, away from any poles or trees.

Persons struck by lightning receive a severe electrical shock and may be burned, but they carry no electrical charge and can be handled safely. Someone who appears to have been killed by lightning often can be revived by prompt action. Those unconscious but breathing probably will recover spontaneously. First aid and CPR should be administered as appropriate until medical assistance arrives. Realize that victims who appear to be only stunned or otherwise unhurt also need attention. Check for burns, especially at fingers and toes and next to metal buckles, jewelry, or personal items that the victim is wearing. Remember to treat for shock.

12.3.2 Tornadoes

Tornadoes usually develop from thunderstorms and normally occur at the trailing edge of the storm. Most tornadoes occur in the months of April, May, June, and July in the late afternoon and early evening hours.

When storms are predicted for the project areas it is necessary monitor weather conditions on a radio. A tornado watch is issued when favorable conditions exist for the development of a tornado. A tornado warning is issued by the local weather service office whenever a tornado has actually been sighted or is strongly indicated by radar.

If a tornado warning is issued, seek shelter immediately. If there are permanent buildings located on site, go there immediately, moving toward interior hallways or small rooms on the lowest floor.

If a tornado warning is issued and you are in a vehicle or a site trailer, leave and go to the nearest building. If there are no buildings nearby, go in the nearest ditch, ravine, or culvert, with your hands shielding your head.

If a tornado is sighted or a warning issued while you are in open country, lie flat in a ditch or depression. Hold onto something on the ground, such as a bush or wooden fence post, if possible.

Once a tornado has passed the site, field personnel are to assemble at the designated assembly area to determine if anyone is missing or injured. Administer first aid and seek medical attention as needed.

12.3.3 Winter Storms

When snow or ice storms are predicted for the project area, field personnel should monitor radio reported weather conditions. A winter storm watch is issued when a storm has formed and is approaching the area. A winter storm warning is issued when a storm is imminent and immediate action is to be taken.

When a storm watch is issued, monitor weather conditions and prepare to halt site activities. Notify the Project Manager or FTL of the situation. Seek shelter at site buildings or leave the site and seek warm shelter.

If you are caught in a severe winter storm while traveling, seek warm shelter if road conditions prevent safe travel. If you are stranded in a vehicle during a winter storm:

- Stay in the vehicle. Disorientation comes quickly in blowing and drifting snow.
- Wait for help.
- Keep a window open an inch or so to avoid carbon monoxide poisoning.
- Run the engine and heater sparingly.
- Keep watch—don't let everyone sleep at the same time.
- Exercise occasionally.

12.4 ENGINEERED CONTROLS

Where economically and practically feasible, engineered controls may be selected to reduce exposure of field personnel to health or safety hazards. The OSO and FTL should always be on the lookout for potential engineered controls that may be implemented.

12.5 ADMINISTRATIVE CONTROLS

When engineered controls are not feasible, administrative controls in the form of work practices will be implemented to minimize risk to personnel from site hazards. Work practices that may be instituted include removing non-essential personnel from sampling areas and work rotation to control exposures to extreme thermal stress.

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Appendix A
Activity Hazard Analysis

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Tasks	Hazards	Controls	PPE Required
Sampling at Operating Mine Sites (including sites undergoing reclamation)	• Cuts and scrapes	• Follow procedures of mine operator. Report injuries to buddy or to person designated by mine operator for first aid if necessary. • Come to work alert and ready—make sure that general awareness of surroundings is part of job planning and execution. • Wear heavy work gloves when handling sharp objects, and point sharp objects toward the ground.	Minimum: hard-hat, safety glasses, boots, long pants, and cotton shirt; heavy work gloves for handling sharp objects. Additional PPE as specified by the mine operator.
	• Heat or cold stress	• Monitor for heat and cold stress as outlined in the Health and Safety Plan (see Section 7.0).	
	• Slips/trips/falls	• Maintain general awareness of surroundings.	
	• Being struck by heavy equipment or caught between equipment and a stationary object	• Receive site-specific hazard training. • Be alert to the direction of traffic flow. • Maintain eye contact with heavy equipment operators and give them the right-of-way. • Never stand between operating vehicles and nearby stationary objects. • Ask the mine operator where the blind spots for each piece of equipment are located—DO NOT STAND IN BLIND SPOTS.	

Tasks	Hazards	Controls	PPE Required
Sampling at Operating Mine Sites (continued)	• High wall collapse	• Receive site-specific hazard training. • Perform work under escort of mine employee. • Do not stand between high wall and heavy equipment—make sure you have an escape route. • Know the mine emergency signals and evacuation procedures.	
Sampling at Inactive Mine Sites	• Cuts and scrapes	• Report injuries to buddy for first aid if necessary. • Come to work alert and ready—make sure that general awareness of site surroundings is part of job planning and execution. • Wear heavy work gloves when handling sharp objects, and point sharp objects toward the ground.	Minimum: hard-hat, boots, long pants, and cotton shirt; heavy work gloves for handling sharp objects.
	• Slips/trips/falls	• Do not walk at the edge of sharp drop-offs. Maintain special care on scree slopes or while working in other areas with unstable footing. Maintain general awareness of surroundings. • Be aware of the possibility of abandoned underground mine portals.	
	• Dislodged rocks	• Avoid areas below people who may dislodge rocks while working or walking on slopes. Cry “ROCK” after dislodging a rock when other people are below.	

Tasks	Hazards	Controls	PPE Required
Sampling at Inactive Mine Sites (continued)	• Deteriorated roads	• Receive site-specific hazard training. • Exercise care while traveling by vehicle.	
	• High wall collapse or rock-fall	• Receive site-specific hazard training. • Know signs of instability. Carefully examine the surroundings to determine if entry is safe. • Be aware of the most efficient evacuation route. • Do not walk on top of high walls. • Avoid working downslope of rock slides.	
	• Heat or cold stress	• Monitor for heat and cold stress as outlined in the Health and Safety Plan (see Section 7.0).	
	• Drinking water from mine pits	• Water in mine pits is of unknown quality, and WILL NOT be used for drinking water. Water purification with iodine, filters, or boiling will not remove potentially toxic metals.	
Travel in Remote Areas	• General	• Always carry ten essentials for wilderness travel (see Table 2-3).	Heavy work gloves for handling sharp objects.
	• Slips/trips/falls	• Maintain general awareness of surroundings.	

Tasks	Hazards	Controls	PPE Required
Travel in Remote Areas (continued)	• Cuts and scrapes	• Report injuries to buddy for first aid. Come to work alert and ready—make sure that general awareness of site surroundings is part of job planning and execution. • Wear heavy work gloves when handling sharp objects, and point sharp objects toward the ground.	
	• Safe drinking water	• Contact National Forest officials in advance regarding any water quality advisories. • Bring sufficient water. Assume that you will need one gallon of drinking water per person per day.	
	• Severe weather	• Bring proper rain gear and warm clothes. • Listen to weather forecasts before entering remote areas. If severe weather is likely, postpone sampling. • In case of lightning, avoid high ground and open areas. • In the event of rain, monitor for hypothermia. • In the event of snow, monitor for frostbite and hypothermia. In the event of a blizzard that reduces visibility, stay put in an emergency shelter. Do not risk disorientation.	

Tasks	Hazards	Controls	PPE Required
Travel in Remote Areas (continued)	• Getting lost	• Provide the Program Manager or designee with itineraries, including travel routes and the expected date and time of return. Check in once per day, if possible, when in remote areas. Always check in with the Program Manager or designee before and after sampling. The Program Manager or designee will contact search and rescue if field personnel do not return or call in by the specified time. • Bring emergency shelter. • If lost, stay put. You are easier to find this way.	
	• Heat or cold stress	• Monitor for heat or cold stress as outlined in the Health and Safety Plan (see Section 7.0).	
	• Muscle strains	• Know your limits, and do not overextend yourself.	
	• Poisonous plants and animals	• Be able to recognize poisonous plants and animals and avoid them. • If bitten by a snake or spider, apply cold compresses. Get to a hospital as quickly as possible.	
	• Wildlife	• Avoid, if possible, and leave the area. • Make yourself look large by raising arms and shouting. • Slowly back away, without turning your back to the animal.	

Tasks	Hazards	Controls	PPE Required
General Work Practices	• First aid injuries	• Report injuries to buddy for first aid. • Seek additional medical attention, if necessary. • Notify the PSO.	Minimum: hard-hat, safety glasses, boots, long pants, and cotton shirt. Additional: heavy work gloves and hearing protection, as necessary.
	• Slips/trips/falls	• Practice good housekeeping, and remove or reduce slip/trip/fall hazards. • Maintain general awareness of surroundings.	
	• Cuts/scrapes	• Report injuries to buddy for first aid. • Come to work alert and ready—make sure that general awareness of site surroundings is part of job planning and execution. • Wear heavy work gloves when handling sharp objects and point sharp objects towards the ground.	
	• Heat or cold stress	• Monitor for heat and cold stress as outlined in the Health and Safety Plan (see Section 7.0).	
	• Muscle strain	• Alternate activities as needed to give muscles rest.	
	• Slips/trips/falls	• Practice good housekeeping to remove or reduce slip/trip/fall hazards.	
	• Hearing loss.	• Use hearing protection when operating loud equipment.	

Tasks	Hazards	Controls	PPE Required
General Work Practices (continued)	• Electrocution.	• Use GFCI on portable power equipment.	
	• Power equipment	• See manufacturers instructions for the use of hand and portable power tools.	

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Appendix B
Emergency Contacts

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EMERGENCY SERVICES

Security (Police/Sheriff)	911
Fire/Rescue	911
Ambulance	911
Caribou Memorial Hospital Emergency Room	208-547-3341
Portneuf Medical Center Emergency Room (Pocatello)	208-239-1800
Star Valley Hospital Emergency Room (Afton, WY)	307-885-5821
Idaho Poison Control Center	800-860-0620

EMERGENCY CONTACT NUMBERS

Cary Foulk (MWH Project Manager and SBS-1 office contact)	office: 970-879-6260 cell: (b) (6)
Bill Wright (SEA-5 office contact)	cell: (b) (6)
Colin Duffy (MWH Program Safety Officer, On Site Safety Officer)	cell: (b) (6)
Dean Brame (MWH Field Team Leader)	cell: (b) (6)
Barry Koch (P_4 Production Project Manager)	office: 208-547-1439 cell: (b) (6)
Paul Stenhouse (P_4 Production on-site safety specialist)	office: 208-574-1294 cell: (b) (6)
Emergency	911

Note: It may be necessary to dial a '9' to access an outside line at mine sites when calling.

HOSPITAL FACILITIES

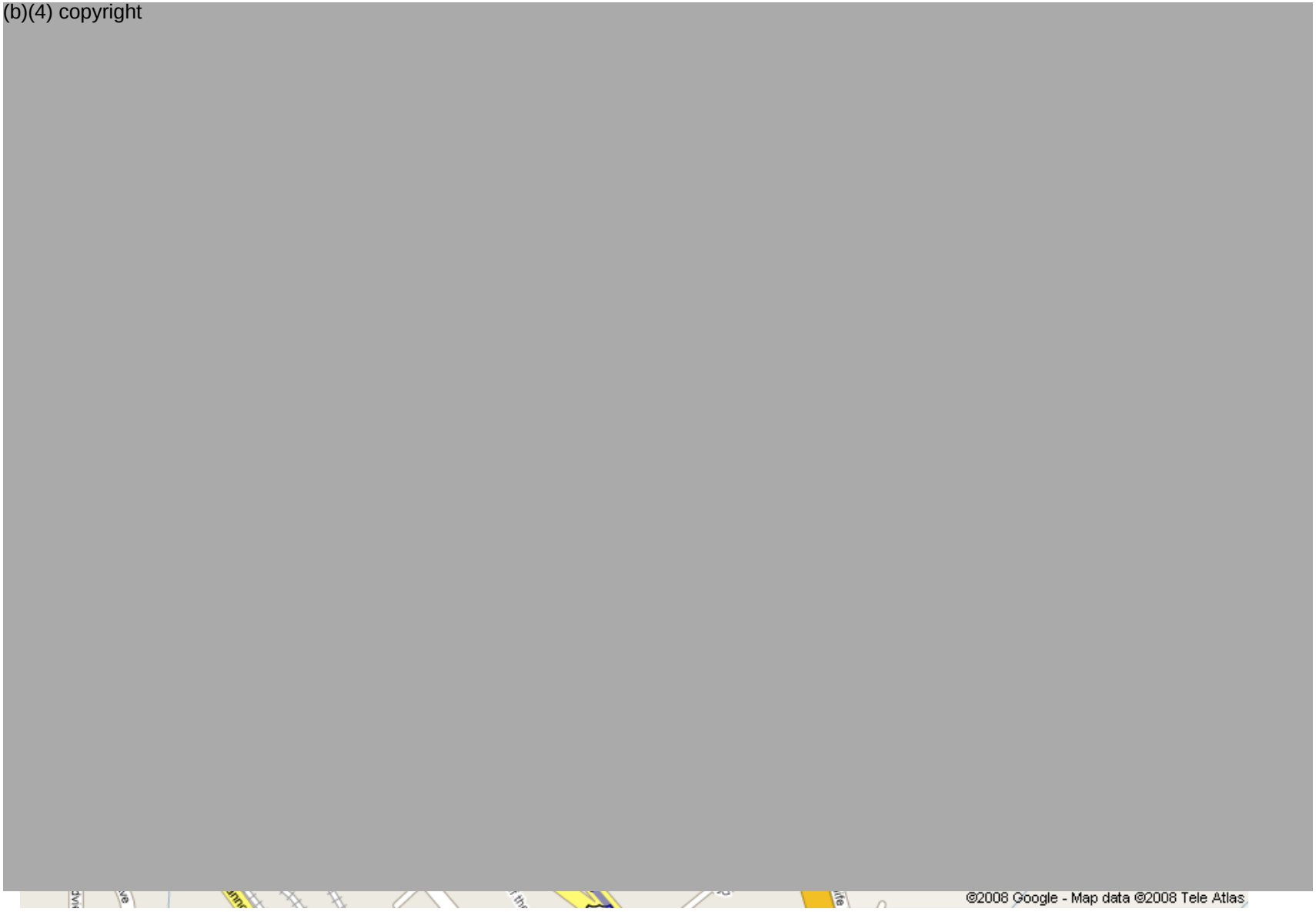
The closest hospital and the specific route to the hospital will depend on where field activities are taking place. The following are the hospitals closest to the project sites:

Caribou Memorial Hospital, 300 South 3rd West, Soda Springs, Idaho

Portneuf Medical Center (East Campus), 777 Hospital Way, Pocatello, Idaho, At Pine Ridge Mall

(b)(4) copyright

Portneuf Medical Center (West Campus), 651 Memorial Drive, Pocatello, Idaho



Star Valley Medical Center	307-886-5800 (Information)
110 Hospital Lane	307-886-5821 (Emergency Room)
Afton, Wyoming	911 (Search and Rescue/Sheriff's Dispatch)

In general, to get to the Caribou Memorial Hospital, proceed to Highway 30 in Soda Springs, which is also known as 2nd South. Proceed to 3rd West, and turn south to 3rd South. To get to the Portneuf Medical Center (East Campus), proceed to I-15 and take the Clark Street exit. The hospital is at the top of a hill and is visible from the freeway. To get to the Portneuf Medical Center (West Campus), proceed to I-15 through Pocatello and take the Clark Street exit. Drive West on Clark, turning South on 15th Street. The West Campus is on the right side. To get to the Star Valley Hospital, proceed to Highway 89 and turn onto Hospital Lane. When making calls from mine offices, it may be necessary to dial '9' to access an outside line.

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Appendix C
Acknowledgement Form

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PERSONAL ACKNOWLEDGMENT FORM

HEALTH AND SAFETY PROGRAM

_____

PROGRAM OR SITE

As a component of the Health and Safety Plan designed to provide personnel safety during the investigation of the southeast Idaho phosphate resource area, you are required to read and understand the Health and Safety Plan. When you have fulfilled this requirement, please sign and date this personal acknowledgment form, and return the form to the On-Site Safety Officer.

_____ _____

Signature Name (Printed)

_____

Date

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Appendix D
Pre-Job Risk Analysis Worksheet

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Monsanto – Soda Springs Plant

Pre-Job Risk Analysis

Job #	
Date:	
Work Area:	

Work area inspected and the following hazards corrected:	

Work Team Signatures:				

Job Name/Title:	

Major Job Steps (Each major step is written below in this column)	**Potential Risks** (Run each job step thru the following list, identifying risks by entering the job step number from the prior column)	**Prevention Plan** (All risks identified from the previous column must have a prevention plan noted here, and detailed on the job order)
1.	Lockout/Tagout	
	Atmospheric Monitoring	
2.	Barriers/Guards	
	Housekeeping	
3.	Permitting	
	Head/face/neck protection	
4.	Eye Protection	
	Body Protection	
5.	Hand/Arm Protection	
	Legs/Feet Protection	
6.	Respiratory Protection	
	Fall Protection	
7.	Hearing Protection	
	Pinch Points	
8.	Lifting	
	Ascend/Descend	
9.	Line of Fire	
	Working Surface	
10.	Ergonomics	
	Work Pace	
11.	Tool Selection/Condition	
	Vehicle Inspection	
12.	Vehicle Operation	
	Assistance	
13.	Communication	
	Environmental Risks	
14.	Chemical Safety/MSDS	
	Electrical Clearance	

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Appendix E
Occupational Incident Report Forms and Procedures

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402 OCCUPATIONAL INJURY/ILLNESS REPORTING AND INVESTIGATION

I. PURPOSE

To set forth the essential components and responsibilities for implementation of the MWH accident investigation procedure. Accidents are investigated to identify unsafe conditions and acts which contribute to injury, illness, and/or property damage so that solutions for accident prevention may be developed.

II. ATTACHMENTS

Incident Reporting Process flowchart
MWH Occupational Incident Report Form (OIR)
Vehicle Accident Report Form (VAR)

III. DISCUSSION

Effective accident investigations lead to procedures which can reduce or eliminate occupational injuries and illnesses. It is important for MWH management and employees to understand and comply with the accident investigation procedures.

IV. DEFINITIONS

Accident/Incident: is an occurrence in a sequence of events that usually produces unintended injury or illness, or death, and/or property damage.

First Aid: is any one-time treatment and any follow up visit for the purpose of observation of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care, but may be administered by a physician.

Near-Miss Situations: are accidents without injury, illness or property damage, but have the potential for serious harm.

V. PROCEDURE

A. GENERAL

Every accident/incident, regardless of whether it results in injury, property damage, or a near miss, should be investigated to determine the actual cause and to take proper action to prevent recurrence. The attached flow chart presents a schematic representation of the incident reporting process.

It is the responsibility of the Business Unit Manager to assure that a thorough investigation into the cause of each employee injury occurs immediately after the event, and to initiate corrective action to prevent a similar recurrence.

The Business Unit Manager must ensure that accidents/incidents are reported to the company health and safety manager to comply with the Occupational Safety and Health Administration (OSHA) recordkeeping/reporting requirements for

occupational injuries and illnesses (see MWH Safety and Health Policies No. 403).

It should be noted that incidents resulting in a fatality or the hospitalization of 4 or more people must be reported to the local OSHA office within 8 hours of the incident. It is preferable for the company health and safety manager to place the report with OSHA, however, if the health and safety manager is not available, the most senior MWH person at the scene of the incident shall make the report. Contact the local telephone information service to obtain the OSHA phone number.

B. ACCIDENT/INCIDENT INVESTIGATIONS

Once an accident occurs (whether it involves personal injury or illness, property damage or is a near miss), whether the victim is a MWH employee, contractor, or visitor, the below listed procedures are to be carried out.

1. Attend to the victim's medical needs.

2. Secure the accident/incident area.

3. Complete the MWH Occupational Incident Report Form.

4. Assemble the personnel and tools needed to perform an accident investigation.

5. Call the Health and Safety Coordinator or Health and Safety Manager **immediately** after the scene is secure, to report the accident and to initiate workers compensation coverage, if needed.

6. Begin the accident investigation.

C. MWH OCCUPATIONAL INCIDENT REPORT FORM

The MWH Occupational Incident Report Form (OIR), Attachment A, shall be completed by the designated MWH employee representative after an employee injury occurs. Each section of the report should be addressed and completed or marked “na” for not applicable. The degree of detail in the report and any additional data should be commensurate with the degree of the incident. That is, the report should be simple and concise for a twisted ankle resulting from someone tripping out of a van. The report should be detailed with additional background for a near miss that resulted from a pressure grout packer being expelled from a well which could have caused a fatality.

If the incident was involving a vehicle, private, company owned/leased, or rented, or other, the attached Vehicle Accident Report Form (VAR) should be completed.

Note: Forms that provide essentially the same information may be used in lieu of the MWH form. Regardless of which form is used, the distribution stated on the MWH form must be used.

The OIR and VAR shall be promptly submitted to the Health & Safety Coordinator and to the Company Health & Safety Manager.

D. ACCIDENT INVESTIGATION REPORT FORMAT

The various sections of the OIR are intended to clearly identify the incident, describe its cause(s), and insure that information is gathered that can be used to prevent recurrence, either for this particular instance, or similar situations. While the OIIIR is basically self-explanatory, it is important that the persons completing and reviewing the form observe the following:

1. Do not speculate as to the facts, nor make unsubstantiated accusations. We all, however, are free to make reasonable assumptions based on a good faith understanding of the facts at hand. Remember that this form becomes an official, MWH legal document.

2. Handle any samples or physical evidence with care, insuring against even inadvertent tampering.

3. Keep all handwritten notes used in gathering the facts of the case in the office master file, along with the completed OIR. Raw data and notes may be helpful in a possible future evaluation.

E. RECORDKEEPING

Insure prompt distribution of complete OIR, i.e. within 24 hours, to:

1. Company Health & Safety Manager
2. The Local Health and Safety Coordinator
3. The Business Unit Manager or Program Director
4. The Direct Supervisor of the affected employee or project

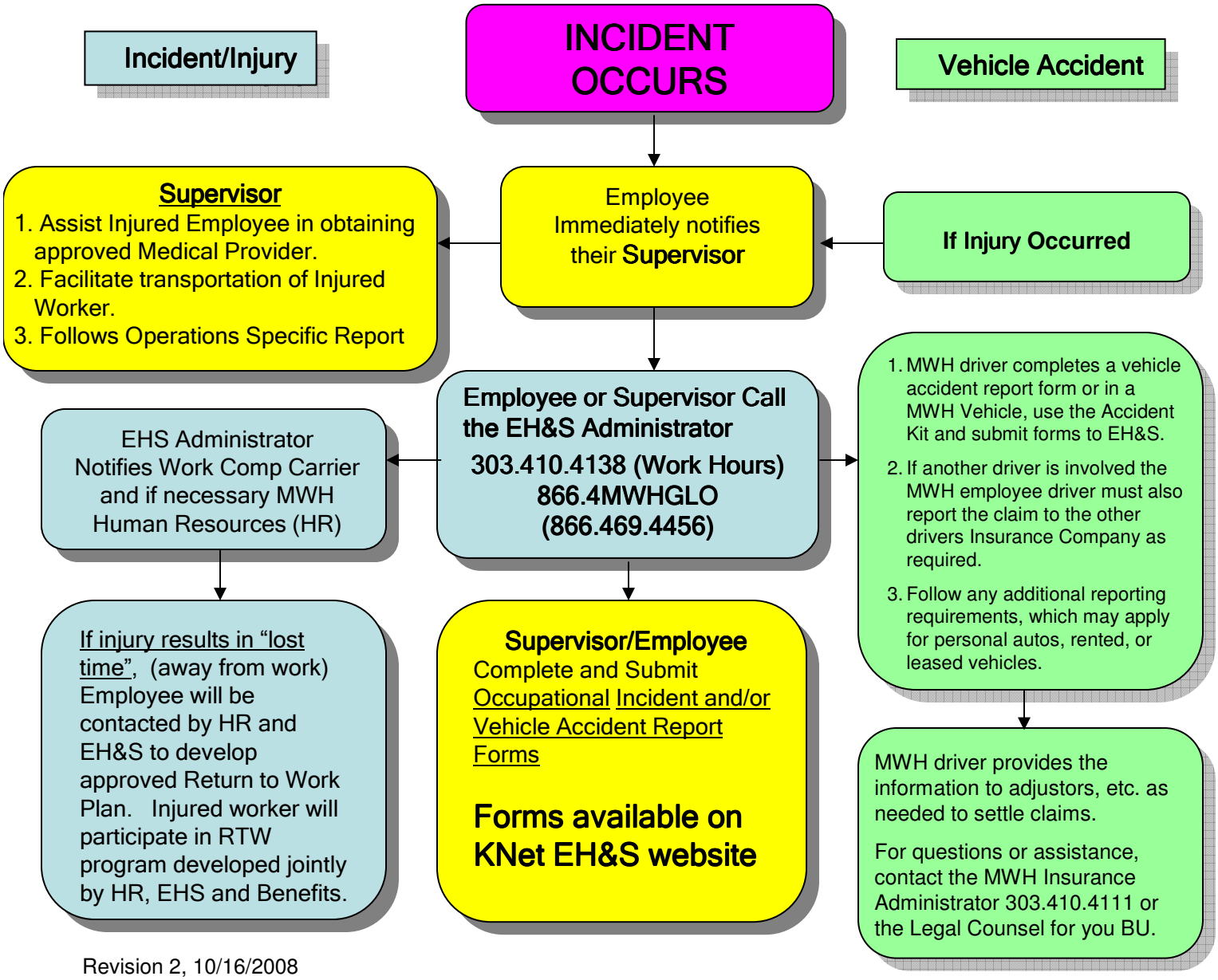
VI. REFERENCES

A. Title 29, Code of Federal Regulations, Part 1904

B. Various States' Labor, Health and Safety, and Workers' Compensation Codes

Incident Reporting Process
Work-Related Injury / Illness or Vehicle Accident

1. Employee(s) should seek necessary medical attention as appropriate: (a) On-site first aid; (b) emergency room-eg., identified in safety plan; (c) via 911-transport by ambulance if there is any uncertainty about severity of injury; (d) designated occupational health clinic near injured employee's office; (e) pre-designated personal physician. ***Tell medical personnel this is a work-related incident. If medical provider asks for a claim number, inform them that a claim number is in process.***
2. MWH Employee(s) should notify their supervisor as soon as possible. The MWHA employee or supervisor should contact EH&S Administrator at 303.410.4138 (Work Hours MST) or 866-4MWHGLO (866.469.4456) after hours.
3. The MWH Occupational Incident Report Form and /or Vehicle Accident Report Form must be completed within 24 hours, preferably ASAP. Submit the form(s) to the EH&S Administrator by Fax (303.410.4196) or e-mail to MWHEHS@mwhglobal.com.
4. Ensure that any client or state specific forms and notifications are completed.



OCCUPATIONAL INCIDENT REPORT FORM

MWH

EMPLOYEE INFORMATION (Electronically, double click to the left of the box, click checked under default value)

NAME		DATE OF REPORT	
OFFICE ADDRESS	OFFICE PHONE	HOME ADDRESS	HOME PHONE
MWH EMPLOYEE (If not MWH employee provide company, address, phone) ☐ YES ☐ NO		BUSINESS UNIT	

JOB TITLE	HIRE DATE	BIRTHDATE	SOCIAL SECURITY NO.	GENDER ☐ M ☐ F

SUBCONTRACTOR INVOLVED (If yes, provide company, address, phone)

☐ YES ☐ NO

INCIDENT INFORMATION

LOCATION (Name of facility or location identification, address, specific site)

DATE AND TIME INCIDENT OCCURRED	EMPLOYEE's WORK SCHEDULE ON DATE OF INCIDENT

TYPE OF INCIDENT: ☐ INJURY ☐ ILLNESS ☐ PROPERTY DAMAGE ☐ NEAR MISS ☐ OTHER INCIDENT

What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. Examples: *climbing a ladder while carrying roofing materials; daily computer key-entry.*

What happened? Tell us how the injury occurred. Examples: *when ladder slipped on wet floor, worker fell 4 feet; worker developed soreness in wrist over time.*

What was the injury or illness? Tell what part of the body was affected and how it was affected. Be more specific than "hurt," "pain," or "sore." Examples: *strained back; carpal tunnel syndrome.*

What object or substance directly harmed the employee? Example: *concrete floor; radial arm saw.*

OCCUPATIONAL INCIDENT REPORT FORM

INJURY/ILLNESS TREATMENT INFORMATION

INJURY/ILLNESS TREATMENT:

☐ NOT APPLICABLE ☐ ON-SITE FIRST AID ☐ OFFERED & REFUSED

☐ OFF-SITE (If checked, list name of physician or other health care professional/facility, address, phone)

Was employee treated in an emergency room? ☐ YES ☐ NO

Was employee hospitalized as an in-patient? ☐ YES ☐ NO

Was this a fatality? ☐ YES ☐ NO Date of death_____

WITNESS STATEMENTS ATTACHED: ☐ YES ☐ NO

Witness Names:

ANALYSIS OF CAUSES AND CORRECTIVE ACTIONS

WHAT CONDITIONS OR ACTIONS CAUSED OR CONTRIBUTED TO THE INCIDENT?

CORRECTIVE ACTIONS TAKEN OR RECOMMENDED (Describe):

DISTRIBUTION

(Supervisor and Business Unit Manger Print & sign name; Original is forwarded to ES&H Den-2)

1. EMPLOYEE or INDIVIDUAL REPORTED BY:	2. EMPLOYEE's DIRECT SUPERVISOR:
3. BUSINESS UNIT MANAGER:	4. HEALTH AND SAFETY: Claudia Kessack Den-2 Telephone: 303-410-4138 Emergency Only 866-469-4456 Facsimile: 303-410-4196 OSHA Log Case Number _____

Note: *Attach additional sheets as necessary to document incident.*

VEHICLE ACCIDENT REPORT FORM

MWH DRIVER INFORMATION

Your Name

☐ Leased (US Fleet Leasing Vehicle Number)

Office Address

☐ Rented ☐ Company owned ☐ Other

City

Year/Make/Model

State ZIP

Age

Work Phone

Business Unit

Is Your Vehicle Driveable?

List Parts Damaged

MWH DRIVER'S INFORMATION

Driver's Name

Home Address

City

State ZIP

Home Phone

OTHER VEHICLE OWNER'S INFORMATION

Owner's Name

Street

City

State ZIP

License Plate Number

WITNESSES

Name

Address

City

State ZIP

Phone Number

OTHER VEHICLE OWNER'S INSURANCE

Insurance Company

Address

City

State ZIP

Policy Number Phone

INJURIES

Were You Injured?	☐ Yes	☐ No
Any Passengers Injured?	☐ Yes	☐ No
Was The Other Party Injured?	☐ Yes	☐ No
Any Of Thier Passengers Injured?	☐ Yes	☐ No

TYPE OF ACCIDENT

Collision With:

☐ Other Vehicle ☐ Animal

☐ Fixed Object ☐ Pedestrian

☐ Ran Off Road ☐ Hit And Run

☐ Other (Non-Hit And Run)

Manner Of Collision:

☐ Backing ☐ Head-On

☐ Side Swipe ☐ Angle

☐ Rear-End (We Hit)

VEHICLE ACCIDENT REPORT FORM

STATEMENT OF FACTS

Accident Date _____ Purpose Of Trip (Circle One) Business Pleasure

Accident Location Street _____ Urban Or Rural Area? _____

City _____ State _____ Zip _____

Was A Police Report Made? ☐ At Scene ☐ At Station ☐ None Report Number _____

Road Conditions ☐ Dry ☐ Wet ☐ Mud ☐ Snow ☐ Ice ☐ Cinders ☐ Other

SPEED OF VEHICLES

YOUR VEHICLE

Before Accident _____

At Impact _____

OTHER VEHICLE

Before Accident _____

At Impact _____

CITATIONS

Was A Citation Issued? _____

To Whom? _____

Nature Of Charge? _____

DRIVER OF VEHICLE (Other Than Assigned Under Lease)

Driver's Name _____

Street _____

City _____ State _____ ZIP _____

Relationship To Employee _____

MAIL OR FAX THIS REPORT TO

Claudia Kessack EH&S Administrator
Phone: (866)4MWHGLO
866.469.4456
Direct Number: 303.410.4138

DESCRIBE WHAT HAPPENED (Be Specific. Attach Additional Sheets If Necessary)

_____

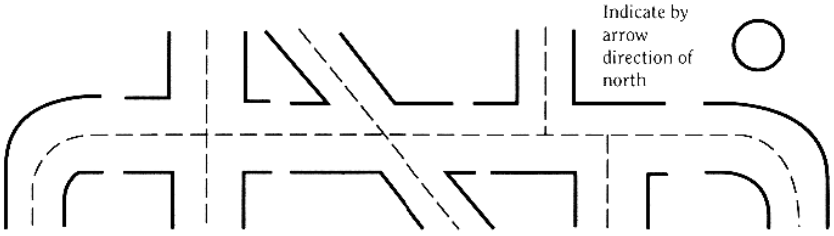
_____

_____

_____

Signature _____ Date _____

ACCIDENT DIAGRAM



Diagram

Please draw what happened. Include signals and number the vehicles; #1 for your vehicle, #2 for other vehicle, etc.

Directions

Use solid line to show path of vehicle before accident, dotted line after accident.

Appendix F
OSHA Job Safety and Health Protection Poster

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JOB SAFETY & HEALTH PROTECTION

The Occupational Safety and Health Act of 1970 provides job safety and health protection for workers by promoting safe and healthful working conditions throughout the Nation. Provisions of the Act include the following:

Employers

All employers must furnish to employees employment and a place of employment free from recognized hazards that are causing or are likely to cause death or serious harm to employees. Employers must comply with occupational safety and health standards issued under the Act.

Employees

Employees must comply with all occupational safety and health standards, rules, regulations and orders issued under the Act that apply to their own actions and conduct on the job.

The Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor has the primary responsibility for administering the Act. OSHA issues occupational safety and health standards, and its Compliance Safety and Health Officers conduct jobsite inspections to help ensure compliance with the Act.

Inspection

The Act requires that a representative of the employer and a representative authorized by the employees be given an opportunity to accompany the OSHA inspector for the purpose of aiding the inspection.

Where there is no authorized employee representative, the OSHA Compliance Officer must consult with a reasonable number of employees concerning safety and health conditions in the workplace.

Complaint

Employees or their representatives have the right to file a complaint with the nearest OSHA office requesting an inspection if they believe unsafe or unhealthful conditions exist in their workplace. OSHA will withhold, on request, names of employees complaining.

The Act provides that employees may not be discharged or discriminated against in any way for filing safety and health complaints or for otherwise exercising their rights under the Act.

Employees who believe they have been discriminated against may file a complaint with their nearest OSHA office within 30 days of the alleged discriminatory action.

Citation

If upon inspection OSHA believes an employer has violated the Act, a citation alleging such violations will be issued to the employer. Each citation will specify a time period within which the alleged violation must be corrected.

The OSHA citation must be prominently displayed at or near the place of alleged violation for three days, or until it is corrected, whichever is later, to warn employees of dangers that may exist there.

Proposed Penalty

The Act provides for mandatory civil penalties against employers of up to $7,000 for each serious violation and for optional penalties of up to $7,000 for each nonserious violation. Penalties of up to $7,000 per day may be proposed for failure to correct violations within the proposed time period and for each day the violation continues beyond the prescribed abatement date. Also, any employer who willfully or repeatedly violates the Act may be assessed penalties of up to $70,000 for each such violation. A minimum penalty of $5,000 may be imposed for each willful violation. A violation of posting requirements can bring a penalty of up to $7,000.

There are also provisions for criminal penalties. Any willful violation resulting in the death of any employee, upon conviction, is punishable by a fine of up to $250,000 (or $500,000 if the employer is a corporation), or by imprisonment for up to six months, or both. A second conviction of an employer doubles the possible term of imprisonment. Falsifying records, reports, or applications is punishable by a fine of $10,000 or up to six months in jail or both.

Voluntary Activity

While providing penalties for violations, the Act also encourages efforts by labor and management, before an OSHA inspection, to reduce workplace hazards voluntarily and to develop and improve safety and health programs in all workplaces and industries. OSHA's Voluntary Protection Programs recognize outstanding efforts of this nature.

OSHA has published Safety and Health Program Management Guidelines to assist employers in establishing or perfecting programs to prevent or control employee exposure to workplace hazards. There are many public and private organizations that can provide information and assistance in this effort, if requested. Also, your local OSHA office can provide considerable help and advice on solving safety and health problems or can refer you to other sources for help such as training.

Consultation

Free assistance in identifying and correcting hazards and in improving safety and health management is available to employers, without citation or penalty, through OSHA-supported programs in each State. These programs are usually administered by the State Labor or Health department or a State university.

Posting Instructions

Employers in States operating OSHA approved State Plans should obtain and post the State's equivalent poster.

Under provisions of Title 29, Code of Federal Regulations, Part 1903.2(a)(1) employers must post this notice (or facsimile) in a conspicuous place where notices to employees are customarily posted.

More Information

Additional information and copies of the Act, OSHA safety and health standards, and other applicable regulations may be obtained from your employer or from the nearest OSHA Regional Office in the following locations:

Atlanta, GA	(404) 562-2300
Boston, MA	(617) 565-9860
Chicago, IL	(312) 353-2220
Dallas, TX	(214) 767-4731
Denver, CO	(303) 844-1600
Kansas City, MO	(816) 426-5861
New York, NY	(212) 337-2378
Philadelphia, PA	(215) 596-1201
San Francisco, CA	(415) 975-4310
Seattle, WA	(206) 553-5930

Washington, DC
1997 (Reprinted)
OSHA 2203

Alexis M. Herman, Secretary of Labor

U.S. Department of Labor
Occupational Safety and Health Administration

This information will be made available to sensory impaired individuals upon request.
Voice phone: (202) 219-8615. TDD message referral phone: 1-800-326-2577

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Appendix G
Monsanto Contractor/Guest ES&H Site Guidelines

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DOCUMENT CONTROL INFORMATION: Document ID #CG001-Rev 9
SODA SPRINGS CONTRACTOR GUEST ES&H Guidelines 6.0 Site Requirements
APPROVER: MENDENHALL, TAB R - Contractor Safety Specialist
REVISION COMMENTS: Update procedure to current practices.

6.0 Contractor/Guest ES&H Site Guidelines

6.0 Table of Contents

6.0 Contractor/Guest ES&H Site Guidelines

6.0 Table of Contents

6.1 CONTRACTOR MANAGEMENT SYSTEMS

Contractors shall provide a full time Safety Representative or qualified designee in the following conditions:

a.) When the contract company has 10 or more employees on the Monsanto site

b.) If less than 10 employees and the job has been defined as a high hazard job through an ESH review or required by the Contractor Safety Specialist.

c.) The Full-time Safety Representative or qualified designee shall:

- Have a minimum of three years experience in mine operation safety.
- Have passed either the OSHA 30 Hour Construction Course or equivalent MSHA course and provide evidence of certification.
- Must have Accident/Incident Investigation Skills and provide evidence of certification.
- In some incidences, First Aid/CPR certification may be required.

d.) The Safety Representative or qualified designee shall be responsible for all subcontractors and to ensure they are following ESH requirements.

e.) The Safety Representatives or qualified designee's primary responsibility will be to continuously monitor the contractor's personnel, the contractor's subcontractor personnel and equipment to ensure compliance with all applicable ESH requirements.

f.) If the Safety Representative or qualified designee does not demonstrate the ability to perform his/her work to the satisfaction of Monsanto, Monsanto will work with the contractor to develop an action plan to address areas of deficiency.

g.) The Safety Representative, qualified designee or anyone else on the property must have the authority to correct any hazard or unsafe practice on the project, even if a work stoppage is required.

6.0 Contractor/Guest ES&H Site Guidelines

6.1.1 EMERGENCY RESPONSE

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

Purpose:

This plan provides for the immediate organization of all efforts to prevent injury to personnel, damage to property and the environment and to ensure accountability of employees.

Scope:

The plant Emergency Plan shall be used for any abnormal incidents that may occur at the Monsanto Silica Quarry or Mine, including but not limited to personnel injury, serious property or environmental releases, which have the potential to impact the surrounding community.

In the event of an accident, injury or severe illness the primary objective is to administer the proper emergency care and activate the EMS (Emergency Medical Service) System as soon as possible. It is important that the proper steps are taken, should an employee or employees be involved in an accident, be injured or become seriously ill. The safety of the personnel providing treatment is as important as the care being administered to the patient. Should a rescuer become injured while caring for a patient, it only compounds the situation.

This will be a stressful time and it is important to remain calm and focused.

Emergency contacts and phone numbers are posted by the phones and supervisors have cards with contacts and phone numbers in their vehicles. These cards have the following reminders printed on the back as steps to be taken in an emergency:

- Secure the scene and make it safe
- Call the ambulance and/or Life Flight
- Have someone man the phones and radios
- Administer First Aid
- Notify Appropriate Personnel
- Send someone to lead the ambulance to the scene

- Clear a LZ for Life Flight (if necessary)
- REMAIN CALM

EMERGENCY EQUIPMENT:

1. The use of designated fire equipment for activities other than fire fighting is prohibited.

2. Know the location of, and how to use, emergency equipment in the area where you are working. Emergency equipment includes eye wash stations, stretchers, positive air equipment and fire extinguisher.

3. Any contractor performing work on a fire protection system must first obtain an Impairment Permit from the Safety Department.

4. Never block emergency equipment such as hoses, extinguishers, emergency vehicles etc.

II. QUARRY

Refer to Mine

III. OFF-SITE PROPERTIES

Purpose:

This plan provides for the immediate organization of all efforts to prevent injury to personnel, damage to property and the environment and to ensure accountability of employees.

Scope:

The plant Emergency Plan shall be used for any abnormal incidents that may occur at the Monsanto Off-Site Properties, including but not limited to personnel injury, serious property or environmental releases, which have the potential to impact the surrounding community.

In the event of an accident, injury or sever illness the primary objective is to administer the proper emergency care and activate the EMS (Emergency Medical Service) System as soon as possible. It is important that the proper steps are taken, should an employee or employees be involved in an accident, be injured or become seriously ill. The safety of the personnel providing treatment is as important as the care being administered to the patient. Should a rescuer become injured while caring for a patient, it only compounds the situation.

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- Call the ambulance and/or Life Flight
- Have someone man the phones and radios
- Administer First Aid
- Notify Appropriate Personnel
- Send someone to lead the ambulance to the scene
- Clear a LZ for Life Flight (if necessary)
- REMAIN CALM

EMERGENCY EQUIPMENT:

1. The use of designated fire equipment for activities other than fire fighting is prohibited.

2. Know the location of, and how to use, emergency equipment in the area where you are working. Emergency equipment includes eye wash stations, stretchers, positive air equipment and fire extinguisher.

3. Any contractor performing work on a fire protection system must first obtain an Impairment Permit from the Safety Department.

4. Never block emergency equipment such as hoses, extinguishers, emergency vehicles etc.

<u>Procedures for Working during Severe Weather and Electrical Storms</u>

Because of the unusual circumstances associated with the operations of drilling equipment in electrical storms, the driller and the CMR will agree, in advance, upon the conditions when drilling will cease and resume in the event an electrical storm is observed in the vicinity of drilling activities. During this time period the drilling operation will be considered to be working on stand-by rates. During an electrical storm, the time will be noted in the driller's log, all drilling activities will cease and all personnel will move to their respective vehicles and await the end of the storm. Once the danger of an electrical strike has diminished sufficiently the time will be noted in the driller's log and work will resume.

6.1.3 TRAINING

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

1. Contractors shall instruct each employee in the recognition and avoidance of unsafe conditions and regulations applicable to his/her work environment to control or eliminate any hazards or other exposure to illness or injury.

2. Contractors shall maintain records of all employees training. Training records shall contain, as a minimum:

   a.) Name and signature of the employee

   b.) Date of training

   c.) Subject and content of the training

   d.) Means used to verify that employee understood the training

   e.) Name of the instructor

3. When requested, the Certified Monsanto Representative shall be provided with documentation and certification of contractor training. In addition, the contract company must assure that all employees have the appropriate job skills, knowledge and proper technical certifications necessary to perform their work safely. Some certifications may include but are not limited to: Certified Welders, Crane Operators, Qualified Electrical Workers and Qualified Riggers. Monsanto reserves the right to audit Contractor Safety Training.

Visitor and Subcontractor Site Specific Training

Visitor

- All visitors shall check-in at the mine office, orientation training and then must take and pass the written examination before proceeding

further.

- All visitors shall have or be issued personal protective equipment before leaving the office. PPE shall consist of a hard hat, safety glasses with side shields, steel-toes shoes and other equipment if required. PPE shall meet all existing codes and requirements.

- All visitors when leaving the office shall be escorted at all times by a Degerstrom Ventures (DV) representative. Travel around the jobsite shall be done in a DV vehicle driven by a DV supervisor. No personal vehicles shall be allowed on the jobsite.

- After the jobsite visit, all visitors shall checkout at the office and return all issued PPE.

Subcontractor

- Before beginning work at the jobsite, all subcontractors and their employees shall check-in at the Degerstrom Ventures office, view the education film and take and pass the written examination. In addition they shall read and acknowledge in writing that they understand and will comply with all the 6.0-jobsite requirements.

- The above shall be done initially, annually and as DV deems necessary.

- All subcontractors and their employees shall have current MSHA training and shall provide the appropriate documentation to DV before entering the worksite.

- The DV Safety Director shall be available at the initial check-in at the office and at any other time to answer any safety questions and to clarify the 6.0 requirements.

- Depending on the subcontractor's scope of work, further safety training and specialized personal protective equipment may be required.

II. QUARRY

1. Contractors shall instruct each employee in the recognition and avoidance of unsafe conditions and regulations applicable to his/her work environment to control or eliminate any hazards or other exposure to illness or injury.

2. Contractors shall maintain records of all employees training. Training records shall contain, as a minimum:

   b.) Name and signature of the employee

c.) Date of training

d.) Subject and content of the training

e.) Means used to verify that employee understood the training

f.) Name of the instructor

3. When requested, the Certified Monsanto Representative shall be provided with documentation and certification of contractor training. In addition, the contract company must assure that all employees have the appropriate job skills, knowledge and proper technical certifications necessary to perform their work safely. Some certifications may include but are not limited to: Certified Welders, Crane Operators, Qualified Electrical Workers and Qualified Riggers. Monsanto reserves the right to audit Contractor Safety Training.

Visitor and Subcontractor Site-Specific Training

Visitor

- All visitors (including delivery personnel) shall check-in at the Quarry office prior to going beyond the office.
- At least annually, orientation training will be given. Visitors must take and pass a written examination.
    - Monsanto's BUL, Mineral Activities of WASHINGTON GROUP International's Project Manager may waive this requirement for visitors who are fully escorted during their visit.
    - Certain governmental representatives (EPA, BLM, etc.) have authority to visit the site without respect to company guidelines. If Government representatives object to this training allow access and report the situation to the BUL, Mineral Activities and WASHINGTON GROUP INTERNATIONAL Project Manger immediately.
- All visitors shall have or be issued personal protective equipment before leaving the office. PPE shall consist of a hard hat, safety glasses with side shields, steel-toed shoes, safety vest and other equipment if required. PPE shall meet all existing codes and requirements.
- Normally visitor travel around the jobsite shall be done in a Monsanto or WASHINGTON GROUP INTERNATIONAL vehicle driven by a company employee.

- After initial orientation, delivery personnel will be allowed to drive their company's equipment to the shop/storeroom/fuel dock for unloading. A Monsanto or WASHINGTON GROUP INTERNATIONAL representative must accompany deliveries past the shop area.

- No personal vehicles are allowed at the Silica Quarry without prior authorization by proper Monsanto or WASHINGTON GROUP INTERNATIONAL supervision.

- After the jobsite visit, all visitors shall checkout at the office and return all issued PPE.

Subcontractor

- Before beginning work at the jobsite, all Monsanto and WASHINGTON GROUP INTERNATIONAL subcontractors and their employees shall check-in at the WASHINGTON GROUP INTERNATIONAL office receive orientation training, take and pass the written examination.

    - In addition they shall read and acknowledge in writing that they understand and will comply with these Monsanto Contractor/Guest Section 6 Site Specific Guidelines.

- The above shall be done at least annually.

- All subcontractors and their employees shall have current MSHA training and shall provide the appropriated documentation to Monsanto and WASHINTON GROUP INTERNATIONAL before entering the worksite.

- The Monsanto Representative and/or WASHINGTON GROUP INTERNATIONAL Safety Supervisor will be available at the initial check-in at the office and at other times to answer any safety questions and to clarify these requirements.

Depending on the subcontractor's scope of work, further safety training and specialized personal protective equipment may be required.

III. OFF-SITE PROPERTIES

Refer to Mine

6.0 Contractor/Guest ES&H Guidelines

6.1.4 ENGLISH PROFICIENCY

1. All contractors must have the ability to read and speak English in order to perform their work safely.

6.2.0 WORKING IN AN OPERATING UNIT

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

Department Hazards

1. No unauthorized person should ever start up or shut down a piece of equipment in any department (unless danger to another person's life exists).

2. Never reach under or between belts, pulleys, idlers, rollers, chains, gears, etc., unless the equipment is locked out.

3. Equipment shall not be operated without proper guards and safety chains in place.

4. Only qualified members of the Electrical Department will open electrical boxes to remove fuses, energize resets or to perform other electrical functions. The use of Ground Fault Circuit Interrupters is required when using tools.

5. Due to the high potential of injury resulting from the uncontrollable whipping of an air hose, which has unexpectedly uncoupled, whip checks will be required when using tools such as jackhammers and air drills.

6. All snap-on hose connections must be secured by wire pins.

7. No one shall use compressed air to clean his or her clothing or body. Compressed air shall not be directed toward anyone.

8. Compressed air shall not be used for cleaning purposes except when reduced to less than 30 P.S.I. and then only when personal safety equipment is used.

Haul Road Safety

Right hand traffic is observed on all roads to, from and at the mine, unless

otherwise posted.

General Haul Road Safety Rules

1. Obey all posted speed limits.

2. Obey all posted warning, advisory and traffic signs.

3. Always wear seatbelts.

4. Watch for wildlife crossing the Ore Haul Road.

5. Always drive with headlights on.

6. Adjust your speed for weather and road conditions.

7. Loaded haul trucks have the right of way.

8. Always assume that unless you can see the operator, he cannot see you.

9. Give plenty of clearance to all mobile equipment. Remember large pieces have very limited visibility and large blind spots.

10. When following a haul truck stay far enough back that you can see the driver's side mirror. That way the driver can see you.

11. Never approach mobile equipment from the rear. Avoid this large blind spot and approach from the driver's side.

12. Never park directly behind any mobile equipment.

13. Be alert for material that may fall off the beds of loaded haul trucks and ore trucks.

14. Never drive past, over or around any type of road barricade.

15. Pay attention to horns, alarms and signals on all mobile equipment.

The Ore Haul Road crosses the Blackfoot River Road at Ballard. Traffic at this intersection is controlled by traffic lights. These lights regulate traffic on the intersection safely, without stopping. This is very important to the operation. The traffic lights are triggered by trips set in the asphalt just above the intersection and cycle through a preset time, which allows the ore trucks to pass through the intersection before the lights change. It is important to avoid driving over the trips and triggering the traffic light cycles. Tripping them may effect the cycle time and interfere with an approaching ore truck.

The trips are clearly marked on the asphalt and with signs. The ore trucks have

the right of way, so avoid driving over the trips, stay clear of approaching traffic, and any ore trucks that may be following behind you.

Ore trucks may be parked on the ore haul road during lunch break and if they are experiencing mechanical problems. When you are approaching these parked trucks, slow down, sound your horn and use caution. The operator or mechanics may step out from under or around these parked trucks.

Drilling, Blasting and Explosives Safety

Approximately 75% of the material that is moved in the mine must be drilled and blasted. This produces broken material that can be loaded and hauled with mobile mining equipment.

Drilling

1. Before drilling is started the operator shall make certain his/her drill is in safe operating condition and fill out the equipment condition report.

2. Before moving a drill into operating position, inspect the work area for unsafe conditions.

3. Drillers and helpers shall wear approved hard hats and hard toed footwear.

4. Drillers and helpers shall wear approved respirators when dusty conditions dictate.

5. Always use water or other appropriate fluids to control dust while drilling.

6. Keep doors and windows closed while drilling. Check that all door and window seals are in good condition.

7. Drillers and helpers shall wear ear protection when the noise levels are over 85 dBa.

8. The driller and helpers shall wear proper eye protection.

9. Do not fuel or service drills on unstable or steep terrain. Move the drill to a safe location.

10. Before moving a drill to another area, drill steel and other equipment shall be secured and the mast placed in a safe position.

11. Never operate the drill, raise or lower the mast without first positing the jacks on firm ground.

12. If it is necessary to climb on the mast to do any type of work, fall protection is required.

13. When raising or lowering the mast make certain that the area is free from any overhead or on ground obstructions that may make contact with the drill or mast.

Blasting Safety and Procedure

This procedure is designed to assure the safety of all personnel in and around areas of the mine where blasting is being conducted. This procedure will be followed at all times when conducting any blasting activities.

In order to ensure safe handling, transportation, storage and use of explosives, all precautions recommended by the manufactures, regulations set by governing agencies, and company rules must be understood and followed. Part 56 subpart E- “Explosives” of the MSHA regulations covers the proper handling, transportation, and storage of explosives. These regulations plus company rules and policies concerning the use, handling, transportation and storage of explosives must be followed at all times.

This procedure addresses the process to be followed after a blast pattern has been loaded and tied in, in preparation for initiation.

Once a shot has been loaded and tied in, the following steps will be followed.

1. All vehicles, equipment and personnel will be moved from the area to a location that will be clear of any fly rock that may accompany the blast.

2. The blast area will be cleared; guards and/or barricades placed at all entrances to the area.

3. All roads leading to the blasting area will be guarded and/or barricaded to prevent unauthorized or accidental entrance.

4. At least two guards will be set up to assure that the blast area is clear and that no one enters the area prior to the blast.

5. Guards will be located at a safe distance from the blast area, having a clear view of approaching roads, and if safely possible within sight of the blast area itself.

6. All guards are required to have radio communication with the blaster at all times during blasting sequence.

7. Once the area is cleared and secured, the shot line will be strung out a safe distance to assure the blasters safety (minimum 100 yards). Be careful not to string the line across an area where it may be damaged by equipment or vehicles that may still be leaving the area.

8. The blaster will fire the blast from a minimum of 100 yards away from the blast pattern. It may be necessary to run the shot line more than 100 yards, based on the size of blast pattern size, powder factor, weather, or site conditions.

9. The blaster initiating the shot will do so while standing beside a vehicle or piece of mobile equipment that can be used as cover in the event of fly rock. Guards and other blast support personnel must be inside a vehicle or piece of mobile equipment during blast initiation.

10. The following signals will be used for every blast:

i) ***Warning signal*** – Three 5-second sirens will be sounded 5 minutes before the blast signal. At this time all personnel will be notified on the radio of the upcoming blast and its location. Radio notification will be made on both Degerstrom Ventures and Monsanto radio frequencies.

ii) Blast Signal – A series of short siren blasts one minute prior to the shot. After the *Blast Signal* has been sounded the blaster will ask for radio silence. Radio silence will be maintained (Except ore train location calls or an emergency) so that the countdown can be carried out and if necessary the blaster can be notified of any conditions that may require halting the blasting procedure.

iii) Countdown – Following the *Blast Signal* a countdown will be announced over both radio frequencies. The countdown will be from 10 down to 4, followed by a five second break, then 3–2–1 Fire. This five-second break will allow anyone to interrupt the blast, for any reason, before it is fired.

iv) Blast Clearing - Once the blast pattern has been shot and the area is safe to enter, it will be inspected by a person with the ability and experience to perform a post-blast examination for misfired holes and any other unsafe conditions that may exist. After this inspection the *All Clear Signal* will be sounded and announced on the radio.

v) All Clear Signal – A 10-second siren blast following inspection of the blast area. The *All Clear Signal* will be announced on both Degerstrom and Monsanto radio frequencies.

Use of Blasting Fuse

In the event that a blast must be initiated using a cap and fuse the above procedure will be followed using all of the same signals and warnings, with the exception that the countdown will not be necessary. If a fuse is used to initiate a blast, it shall have minimum time duration of 5 minutes from initiation to detonation.

Misfires

The blaster will visually inspect each pattern after each shot and if any portion of the pattern misfires it will be properly addressed at that time. Portions of the pattern that have misfired will be tied in and re-shot. The same procedure as a normal blast pattern will be used and the normal blast initiation procedure will be followed.

Electrical Storm Precaution

It is unlikely that lightning could cause premature detonation, but precautions must be taken against this possibility. Because lightning storms can pass over very quickly, it is not necessary to gather up tools or other equipment, which may be scattered about the blast pattern.

At the approach of an electrical storm, hole-loading activities shall be suspended and personnel withdrawn to a safe location, which is the normal distance evacuated for a blast. When these conditions occur, Personnel shall avoid large metal objects especially bulk trucks or other vehicles that transport explosives.

It will also be necessary to post barricades and guards so that no one unknowingly enters blast area. The blasting area shall remain secured and off limits until the immediate threat of electrical storm hazard has ended.

Explosive Safety

1. Persons trained and experienced in the handling and use of explosives shall direct blasting operations.

2. Detonators shall not be stored with other explosives.

3. Area around magazines shall be kept clear of brush, dry grass and rubbish for a distance of 25 feet.

4. Detonators and explosives shall be stored in magazines.

5. Bulk blasting agents shall be stored in weather-resistant bins or tanks.

6. Magazines, storage bins and tanks shall be locked when not attended to prevent unauthorized access or entry.

7. Explosives shall be transported with our undue delay to the storage area or blasting area.

8. Only non-sparking tools shall be used when working with explosives.

9. When explosive materials or initiating systems are bought to a blast site, the site shall be attended, barricaded and posted with warning signs to prevent unauthorized entry.

10. Vehicles and unauthorized persons shall not enter posted blasting areas.

11. Transport vehicles will not be parked and left running unless powering a device used for loading.

12. Transport vehicles when parked shall have the brake set and wheels chocked.

13. Vehicles containing explosive materials shall be:

    - Maintained in good conditions.
    - Equipped with sides and enclosures higher than the explosive material being transported or have explosive material secured to a non-conductive pallet.
    - Equipped with at least 2 multi-purpose dry-chemical fire extinguishers.
    - Posted with proper warning signs visible from all sides.
    - Occupied only by persons necessary for handling the explosive material.
    - Attended/locked except when parked at the blast site and loading is in progress.
    - Shall not be taken into the shop or shop area.

14. Vehicles containing explosive materials shall have:

    - No sparking material exposed in the cargo space
    - Only properly secured non-sparking equipment in the cargo space with explosives.

15. Smoking and use of open flames shall not be permitted within 50 feet of explosive material.

II. Quarry

Department Hazards

1. No unauthorized person should ever start up or shut down a piece of equipment in any department (unless danger to another person's life exists).

2. Never reach under or between belts, pulleys, idlers, rollers, chains, gears, etc., unless the equipment is locked out.

3. Equipment shall not be operated without proper guards and safety chains in place.

4. Only qualified members of the Electrical Department will open electrical boxes to remove fuses, energize resets or to perform other electrical functions. The use of Ground Fault Circuit Interrupters is required when using tools.

5. Due to the high potential of injury resulting from the uncontrollable whipping of an air hose, which has unexpectedly uncoupled, whip checks will be required when using tools such as jackhammers and air drills.

6. All snap-on hose connections must be secured by wire pins.

7. No one shall use compressed air to clean his or her clothing or body. Compressed air shall not be directed toward anyone.

8. Compressed air shall not be used for cleaning purposes except when reduced to less than 30 P.S.I. and then only when personal safety equipment is used.

Drilling, Blasting and Explosives Safety

Approximately 90% of the material that is moved in the quarry must be drilled and blasted. This produces broken material that can be loaded and hauled with mobile mining equipment.

Drilling Safety Rules

- Before drilling is started, the operator shall make certain his drill is in safe operating condition and fill out the equipment condition report.

- Before moving a drill into operating position, inspect the work area for unsafe conditions.

- Drillers and helpers shall wear:

    - Approved hard hats
    - Safety glasses with side shields
    - Hard toed footwear
    - Ear protection when the noise levels are over 85 dBa
    - Approved respirators when dusty conditions dictate
    - Reflective safety vest or approved reflective stripped coveralls.

- Always use dust collector water or other appropriate fluids to control dust while drilling.

- Keep doors and windows closed while drilling.

    - Check that all door and window seals are in good condition.

- Do not fuel or service drills on unstable or steep terrain. Move the drill to a safe location.

- Before moving a drill to another area, drill steel and other equipment shall be secured and the mast placed in a safe position.

- Never operate the drill, raise or lower the mast without first positioning the jacks on firm ground.

- Fall protection is required anytime it is necessary to climb on the raised mast.

- When raising or lowering the mast, make certain that the area is free from any overhead or on ground obstructions that may make contact with the drill or mast.

<u>Blasting Safety and Procedure</u>

This procedure is designed to assure the safety of all personnel in and around areas of the quarry where blasting is being conducted. This procedure will be followed at all times when conducting any blasting activities.

In order in ensure safe handling, transportation, storage and use of explosives, all precautions recommended by the manufactures, regulations set by governing agencies, and company rules must be understood and followed. Part 56 subpart E- “Explosives” of the MSHA regulations covers the proper handling, transportation and storage of explosives. These regulations plus company rules

and policies concerning the use, handling, transportation and storage of explosives must be followed at all times.

Only persons properly trained and certified by WASHINGTON GROUP INTERNATIONAL will handle any blasting materials. Magazines and other explosive storage facilities will be kept locked except during transfer of materials and only those authorized personnel will have keys to these areas. Vehicles containing explosive materials will be properly cleaned and inspected by qualified personnel before being brought into the shop facility.

This procedure addresses the process to be followed after a blast pattern has been loaded and tied in, in preparation for initiation.

Once a shot has been loaded and tied in the following steps will be followed.

1. All vehicles, equipment and personnel will be moved from the area to a location that will be clear of any fly rock that may accompany the blast.

2. Guards and/or barricades will be placed at all entrances to the area to prevent unauthorized or accidental entrance.

3. At least two guards will be in-place to assure that the blast area is clear and that no one enters the area prior to the blast.

4. Guards will:

    a. Be located at a safe distance from the blast area
    b. Have a clear view of approaching roads
    c. If safely possible, be within sight of the blast area itself.

5. All guards are required to have radio communication with the blaster al all times during blasting sequence.

6. Once the area is cleared and secured, the shot line will be strung out a safe distance to assure the blaster's safety (minimum 100 yards). Be careful not to string the line across an area where it may be damaged.

7. The blaster will fire the blast from a minimum of 100 yards away from the blast pattern. It may be necessary to run the shot line more than 100 yards based on the size of blast pattern size, powder factor, and weather or site conditions.

8. The blaster initiating the shot will do so while standing beside a vehicle or other piece of mobile equipment that can be used as cover in the event of fly rock. Guards and other blast support personnel must be inside a vehicle or piece of mobile equipment during blast initiation.

9. The following signals will be used for every blast:

i) ***Warning Signal -*** All mine personnel will be notified of the upcoming blast and its location. Radio notification will be made on the Washington Group International radio frequencies.

ii) ***Blast Signal –*** The blaster will ask for radio silence. Radio silence will be maintained so that the countdown can be carried out and if necessary the blaster can be notified of any conditions that may require halting the blasting procedure.

iii) ***Countdown –*** The blaster after announcing radio silence will broadcast a short count and initiate the blast.

iv) ***Blast Clearing –*** Once the blast pattern has been shot and the area is safe to enter, it will be inspected by a person with the ability and experience to perform a post-blast examination for misfired holes and any other unsafe conditions that may exist. After this inspection the All-Clear Signal will be announced on the radio.

v) ***All- Cleared Signal –*** The All Clear Signal will be announced by the blaster, supervisor or designated employee on the Washington Group radio frequencies.

Use of Blasting Fuse

In the event that a blast must be initiated using a cap and fuse, the above procedure will be followed using all of the same signals and warnings, with the exception that the countdown will not be necessary. If a fuse is used to initiate a blast, it will have minimum time duration of five (5) minutes from initiation to detonation.

Misfires

The blaster will visually inspect each pattern after each shot and if any portion of the pattern misfires it will be properly addressed at that time. Portions of the pattern that have misfired will be tied in and re-shot. The same procedure as a normal blast pattern will be used and the normal blast initiation procedure will be followed.

Electrical Storm Precaution

It is unlikely that lightning could cause premature detonation, but precautions must be taken against this possibility. Lightning storms can pass over very quickly; it is not necessary to gather up tools or other equipment, which may be scattered about the blast pattern.

At the approach of an electrical storm, hole-loading activities will be suspended and personnel withdrawn to a safe location, which is the normal distance evacuated for a blast. When these conditions occur, personnel shall avoid large metal objects specially bulk trucks or other vehicles that transport explosives.

It will also be necessary to post barricades and guards so that no one unknowingly enters blast area. The blasting area shall remain secured and off limits until the immediate threat of electrical storm hazard as ended.

Explosive Safety Rules

- Only certified persons trained and experienced in the handling and use of explosive material shall direct or conduct blasting operations.
- Detonators shall not be stored with other explosives
- The area around magazines shall be kept clear of brush, dry grass and rubbish for a distance of 25 feet.
- Detonators and explosives shall be stored in magazines.
- Bulk blasting agents shall be stored in weather-resistant bins or tanks.
- Magazines, storage bins and tanks shall be locked when not attended to prevent unauthorized access or entry.
- Explosives shall be transported without undue delay to the storage or blasting area.
- Only non-sparking tools shall be used when working with explosives.
- When explosive materials or initiating systems are brought to a blast site, the site shall be attended, barricaded and posted with warning signs to prevent unauthorized entry.
- Vehicles and unauthorized persons shall not enter posted blasting areas.
- Vehicles transporting explosives will not be parked and left running unless powering a device being used for loading.
- Vehicles transporting explosives when parked shall have the brake set and the wheels chocked.
- Vehicles containing explosive materials shall be:
    - Maintained in good condition.
    - Equipped with sides and enclosures higher than the explosive material being transported or have explosive material secured to a non-

conductive pallet.

- Equipped with at least 2 multi-purpose dry-chemical fire extinguishers.
- Posted with proper warning signs visible from all sides.
- Occupied only by persons necessary for handling the explosive material.
- Attended or locked except when parked at the blast site and loading is in progress.

- Vehicles containing explosive materials shall not be taken into the shop or shop area.
- Vehicles containing explosive materials shall have:
  - No sparking material exposed in the cargo space
  - Only properly secured non-sparking equipment in the cargo space with explosives.
- Smoking and use of open flames is not permitted within 50 feet of explosive material.

Ground Control

MSHA regulations state

- Mining methods shall be used that will maintain wall, bank and slopes stability in places where persons work to travel in performing their assigned tasks…
- In places where persons work or travel in performing their assigned tasks: loose or unconsolidated material shall be sloped to the angle of repose or stripped back for at least 10 feet from the top of the pit wall. Other conditions at or near the perimeter of the pit wall, which create a fall of material hazard to persons, shall be corrected.
- Ground conditions that create a hazard to persons shall be taken down or supported before other work or travel is permitted in the affected area. Until corrective work is completed the area shall be posted with a warning against entry and, when left unattended a barrier shall be installed to impede unauthorized entry.
- High walls and banks adjoining travel ways shall be examined weekly or more often if changing ground conditions warrant.
- Persons shall not work or travel between machinery or equipment and the high wall or bank where the machinery or equipment may hinder escape form wall or slides of high wall or bank. Travel is permitted when necessary for

persons to dismount.

It is important to be alert for changing conditions that may affect high walls and banks such as weather, blasting, digging, and ground movement. Employees will not work near or under dangerous banks or high walls. Never turn your back to high walls and banks when working near them. Never put yourself between equipment, vehicles, piles of material, boulders, etc., that may hinder your escape in the event of a slide or fall of material.

When correcting problems with high walls and banks: scaling will be done by a safe means and from a safe distance BEFORE other work may be performed in the area. Overhanging banks shall be taken down immediately. Other unsafe ground conditions shall be corrected promptly or the area barricaded and posted until the unsafe conditions can be corrected.

When material is being removed from a stockpile, access to the top of the stockpile will be barricaded. If it is necessary to be dumping material on, and removing material from a stockpile at the same time, the area where material is being removed will be bermed off to keep traffic a safe distance away.

III. OFF-SITE PROPERTIES

Department Hazards

1. No unauthorized person should ever start up or shut down a piece of equipment in any department (unless danger to another person's life exists).

2. Never reach under or between belts, pulleys, idlers, rollers, chains, gears, etc., unless the equipment is locked out.

3. Equipment shall not be operated without proper guards and safety chains in place.

4. Only qualified members of the Electrical Department will open electrical boxes to remove fuses, energize resets or to perform other electrical functions. The use of Ground Fault Circuit Interrupters is required when using tools.

5. Due to the high potential of injury resulting from the uncontrollable whipping of an air hose, which has unexpectedly uncoupled, whip checks will be required when using tools such as jackhammers and air drills.

6. All snap-on hose connections must be secured by wire pins.

7. No one shall use compressed air to clean his or her clothing or body. Compressed air shall not be directed toward anyone.

8. Compressed air shall not be used for cleaning purposes except when reduced to less than 30 P.S.I. and then only when personal safety equipment is used.

9. All personnel working around the drilling equipment are to avoid placing themselves between the equipment and any cut banks or rock slops.

6.0 Contractor/Guest ES&H Site Guidelines

6.2.1 OFFICE SAFETY

1. The following items, while not intended to be all-inclusive, are indications of some of the areas of concern for good office safety:

    a. Never carry pencils with points exposed in shirt pockets.

    b. Report spills, slipping and tripping hazards to the supervisor immediately. Clean up or correct them as soon as possible.

    c. Keep all machinery guards in place.

    d. Never leave paper cutter arm in an up, or open position.

2. The following items, while not intended to be all-inclusive, are indications of some of the areas of concern for good office housekeeping:

    a. Do not store used equipment in office.

    b. Do not stack large amounts of paper, and other items, on the tops of file cabinets, bookcases and tables.

    c. Clear desk and table tops at the end of each workday.

    d. Use coat racks or closets for coats and surplus clothing.

    e. Limit wall hangings to what is appropriate.

6.0 Contractor/Guest ES&H Site Guidelines

6.3.0 HOUSEKEEPING

1. It is each employee's responsibility to keep his or her area clean and uncluttered.

2. Housekeeping will be performed on all jobs in a timely manner.

3. Every floor, working place and passageway shall be kept free from protruding nails, splinters, loose boards, water, making slippery surfaces and unnecessary holes and openings.

4. Containers shall be provided for collection and separation of all refuse. Covers shall be provided on containers used for flammable or harmful substances.

5. Extension cords and/or welding leads must be kept out of walkways and placed overhead whenever possible.

6.3.1 BASIC ENVIRONMENTAL SAFETY AND HEALTH RULES

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

Working safely is a condition of employment at this plant. Each employee (Monsanto & Contractor) must comply with the plant's safety rules and policies. Knowledge of these specific rules and policies is mandatory in order to perform work safely. In general, plant rules are provided to help ensure everyone's safety. The following site-specific rules are provided to address specific safety concerns that are unique to our plant.

1. The best insurance against incidents and injuries:

    a) Know the job, the pertinent safety rules and area hazard.
    b) Keep focused and your mind on the work at hand.
    c) Use common sense.
    d) If you can't do it safely, don't do it.
    e) If you don’t know, don’t be afraid to ask.

2. Only approved hard hats (ANSI 289.1-1969) shall be worn.

3. Long hair below the nape of the neck must be pinned up or worn in a ponytail.

4. Radios, televisions, and cameras require permission from the Monsanto Site Manager before being brought onto Monsanto property. The use of a cell phone camera for taking pictures requires permission from the Monsanto Site Manager.

5. All individuals have a direct responsibility to immediately report unsafe acts or conditions to supervision. If a potential injury is imminent, an attempt must be made to stop the unsafe act or condition, and report it through the use of the corrective action form.

6. It is the responsibility of the CMR to explain area hazards to the contractor before the contractor performs any work.

7. All "Hot" work will cease if the plant disaster alarm is sounded. (This includes cigarette smoking).

8. Eating or drinking is prohibited in production areas (designated eating areas are provided).

9. Always use handrails when going up and down stairs. Remember the 3-point contact.

10. Objects or equipment must never be placed within 3 feet of electrical boxes or disconnects.

11. Equipment shall not be operated within 15 feet of power lines.

12. A full-face cutting hood or a face shield with goggles are required when using a cutting torch.

13. A face shield with goggles are required when doing any kind of grinding, cutting, sanding, water blasting, sawing, hammering or chipping that might have the potential for flying debris.

14. No one under the age of 18 may work on Monsanto property. This includes contractors and sub contractors.

15. Contractors should avoid strains when lifting by keeping their back as nearly upright as possible, using leg muscles instead of the back and stomach muscles. They should not attempt to lift more than can be safely handled.

PERSONAL CONDUCT:

Some rules for Personal Conduct are necessary for safe and successful operation of any company. Here are a few of the rules that must be followed when working at Degerstrom Ventures:

- Smoking is not allowed in the office or other areas posted “No Smoking”.

- Bringing intoxicating beverages, narcotics or controlled substances shall not be permitted or used in or around the property.

- Workers found to be possessing or using intoxicating beverages or controlled substances on the job site shall be subject to disciplinary action, including termination.

- Workers shall not engage in fighting or horseplay.

- Willful damage of company property or the property of other workers will not be tolerated.

- Workers will not use threatening or abusive language toward fellow workers or supervisors.

- Theft of any kind will be subject to disciplinary action, including termination.

- Hunting, use of firearms and unauthorized use of ATVs or snowmobiles on the job site are prohibited.

- Employees shall not make unauthorized copies of keys to company locks, facilities, etc.

- Stealing.

- Gambling.

- Posting notices on company property without prior approval of Monsanto Management.

These are the general rules of personal conduct that must be observed. It would be nearly impossible to address every situation that may occur. The basic rule is do not engage in activities that may

- Interfere with your safety or the safety of others
- That may interfere your work or other employees' work, or
- Interfere with the operation of the mine.

JEWELRY POLICY:

1. Rings, metal band watches, bracelets and necklaces will not be worn in the quarry or mine.

2. Rings, metal band watches, bracelets and necklaces will not be worn when performing maintenance/electrical work on Monsanto property.

3. Hoop: earrings, nose-rings and brow-rings will not be worn at the mine, quarry, or when performing maintenance/electrical work on Monsanto property.

4. Stud jewelry is allowed.

5. Medical alert necklaces and bracelets are allowed, and will be kept under clothing when performing maintenance.

BARRICADE TAPE POLICY:

All excavations, holes in floors, areas where work is being performed overhead or temporary work areas where tripping or falling hazards exist will be covered over, roped off, or barricaded off. It is important that the proper barricade tape in conjunction with the proper tag be used when barricading an area. The Soda Springs plant uses two types of barricade tape: yellow & black barricade tape and orange barricade tape.
All barricade tape must be tagged with either a DANGER tag or a CAUTION tag. The DANGER tag or the CAUTION tag must include a description of the hazard, be signed by the person establishing the barricade, be placed on the barricade tape and be spaced frequently enough for easy identification.

1. Orange barricade tape is to be used to barricade an area, which has been determined to be hazardous for entry. Orange barricade tape is considered the same as a lockout. Once the orange barricade tape has been put up, NO ONE IS ALLOWED TO ENTER THAT AREA, not even the person who applied the barricade tape. A DANGER tag must be attached to the barricade tape as described in #3 of this section. CAUTION tags are NOT to be used with orange barricade tape. Once the hazard has been identified and all safety precautions are taken to correct the hazard, the orange barricade tape can be taken down and replaced with yellow & black barricade tape (if necessary) so that work can proceed.

2. Yellow & black barricade tape is used to identify an area where a hazardous condition may exist. Either CAUTION or DANGER tags, as described in #3, may be used with yellow & black barricade tape.

3. CAUTION tags are used, entry into the barricaded area may occur, after reading the warning on the CAUTION tag. If DANGER tags are used, entry into the barricaded area can only occur after requesting permission from the person who established the barricade. If work proceeds beyond shift change, the CAUTION or DANGER tags must be replaced and signed by the oncoming shift.

4. All barricade tape is to be promptly taken down when the reason for the barricade no longer exists. Barricade tape is to be placed in trash containers when it is removed. Barricade tape is NOT to be left lying on the ground in the work area.

PEDESTRIAN TRAFFIC:

1. Pedestrians must use designated walkways and be aware of the beeping signal from backing equipment. They should also be aware of the limited visibility of heavy equipment operators.

2. Stay a safe distance from a moving piece of equipment until the attention of the operator has been gained.

3. Running up or down stairways or through the plant unnecessarily is not allowed.

4. Do not sit on handrails or lean on safety chains.

WORK-IN PROGRESS/ PERFORMANCE EVALUATIONS:

Contractors must participate in work-in-progress audits when asked to by the Monsanto representative.

PERMITS:

There are many different permits in this plant that have been developed to assist in performing safe operations. It is the responsibility of each individual to know when and where a permit is required to perform a job. If in doubt about the need for or use of a permit, ask your assigned CMR. Listed below are some of the permits that are used at this site. This list is not all-inclusive, other permits maybe necessary and your assigned CMR will assist you in determining permits you need to complete your assigned work:

1. Hot Work Permit

2. Work Execution Permit

3. Confine Space Entry Permit

4. Lifting Personnel with Crane Permit

5. Elevated Work Permit

6. Excavation Permit

<u>General Mine Safety Rules</u>

All workers must comply with all mine safety rules, policies, and MSHA regulations. Each worker is responsible for their own safety and the safety of others. Working safely is a condition of employment. Knowledge of these rules, policies and regulations is necessary to perform every job safely. These General Mine Safety Rules are just that “General Rules” and are to help ensure the safety of everyone at the mine site. More specific rules and regulations must also be understood and followed at all times while working at the mine site. Contractors will be provided with policies and procedures addressing working in specific areas of the mine site.

1. Workers must immediately report all equipment damage or personal

injuries and/or illness to appropriate supervisory personnel. The proper reports must be filled out for all reported injury or illnesses; and submitted promptly.

2. When reporting personal injury, illness or near-miss, a Corrective Action Form (CAF) will be filled out by the employee and/or supervisor and submitted to Monsanto as soon as possible, but at least within 8 hours of the incident. Included with the submitted CAF a statement as to whether a formal incident investigation is to take place will be included along with an estimated time and date for completion of the said investigation.

3. All workers have the responsibility to immediately report unsafe acts, or conditions to supervisors. Imminent danger or unsafe conditions must be immediately reported to supervisors and corrected as quickly as safely possible. As indicated in #3 a CAF form will be filled out and submitted to Monsanto as soon as possible but within at least 8 hours of observation or discovery of the unsafe condition or act.

4. Immediately report any property damage, hazardous work conditions or unsafe work practices to supervisor or safety director. All workers have the responsibility and authority to correct any hazard or unsafe condition up to and including stopping work.

5. Intoxicating beverages and narcotics shall not be permitted or used in or around mines. Persons under the influence of alcohol or narcotics shall not be permitted on the job. All Degerstrom Ventures employees or subcontractors are subject to Degerstrom Ventures Substance Abuse Policy and as such are subject to random drug testing at any time while on the mine site.

6. When working near moving machinery, electrical equipment, or other sources of entanglement, do not wear frayed, torn, or loose clothing, or long unrestrained hair.

7. All employees shall know the locations of the **M**aterial **S**afety **D**ata **S**heets (MSDS) and understand their use.

8. Be sure all guards and protective devices are in place before operating equipment.

9. Follow safe lifting procedures.

10. Stay clear of suspended loads, Use tag lines.

11. Do not use short cuts through areas where equipment is operating.

12. Before starting a shift, perform an operations safety check on all equipment, including backup alarms using the appropriated report forms.

13. Do not get on or off moving equipment.

14. Yield the right of way to all equipment, which is less maneuverable or larger than the vehicle you are operating.

15. Operators often have a limited line of vision while operating heavy equipment. Employees must alert an operator of their presence before approaching equipment. If the existence of a hazard is noted, advise the operator.

16. Equipment shall not be operated within 15 feet of overhead power lines.

17. Cleanliness of lubricating equipment is essential to the safety of both personnel and equipment. Keep oilcans, grease guns and grease fittings free of dirt and other matter. Clean up any spills. Over-lubricating causes slippery conditions and fire hazards. Do not overload service vehicles.

18. Grinding wheels must not be operated unless properly adjusted guards are in place, and in safe operating condition. Safety glasses and face shield must be worn.

19. Before cutting or welding, ensure that a fire extinguisher is nearby and that combustibles have been removed or properly protected.

20. To avoid explosions, never permit oil, grease or other readily combustible substances to come in contact with oxygen cylinders, valves, regulators, or fittings.

21. When machinery has been tagged or locked out of operations, do not throw switches or start up equipment until the employee who placed it there has removed the tag or lock.

22. Smoking is forbidden while handling explosives or loading blast holes.

23. Radio headsets are prohibited. At the discretion of department supervisors, self-styled radios are permitted if they are not distracting to other employees and the sound levels in the areas are maintained at less than 85 decibels.

24. Employees are asked to actively support and participate in the company's effort to provide a clean, safe and healthy work environment.

MSHA Regulations

Part 56 of CFR 30 sets forth mandatory safety and health standards for each surface metal or nonmetal mine, including open pit mines, subject to the Federal Mine Safety and Health Act of 1977. The purpose of these standards is for protection of life, the promotion of health and safety and the prevention of accidents.

MSHA is required to inspect surface mines at least twice each year. All contractors working at the mine during an MSHA inspection may be inspected at that time and will be expected to meet all MSHA regulations. Any violation of MSHA regulations may result in a citation being issued.

All on-site employees of contractors must have received applicable MSHA training

and be able to provide necessary documentation or certificates upon demand. This training must be current and up to date prior to beginning work at the mine site.

All contractors must know, understand and follow all the appropriate MSHA regulations. The Safety Director or Supervisors will provide assistance with questions regarding MSHA regulations if necessary.

Environmental Policy

All federal and state environmental laws and regulations must be followed at all times. All Degerstrom Ventures and Monsanto rules must also be followed when conducting work at, around or for the mine. Any questions regarding any environmental requirements should be directed to Degerstrom Ventures supervisors or the Safety Director.

The Enoch Valley and South Rasmussen Mines are subject to the Clean Air Act and the Rules of Control of Air Pollution in Idaho. More specifically, the operation of the mines must comply with the general air permits. Consult these permits for further details

There are three main areas involving environmental protection that must be addressed:

- Chemical use and disposal
- Spill response, reporting and clean-up
- Storm water control

Knowing the requirements of these three areas before any work is carried out is necessary to preventing or reducing the impact of any potential problems that may occur. Contact the supervisors with any question regarding these areas.

Chemical use and disposal

1. The Safety Director or the Purchasing Department must approve all chemicals before being used.

2. MSDS inventories of all chemical must be provided to the Safety or Purchasing Department, and on the job site.

3. All chemicals must be properly labeled and stored at all times.

4. Disposal of any chemicals shall be done in accordance with all federal, state and local regulations.

5. Contractors shall notify Degerstrom Ventures of all chemicals that will be brought on site and provide MSDS for all chemicals prior to beginning work.

Spill response, reporting and clean-up

1. Spill containment and cleanup materials shall be onsite and accessible at all time for any chemicals that are on the property.

2. Spills of any chemicals shall be immediately contained, reported to Degerstrom Ventures supervisors, and then cleaned up.

3. Any spill of a reportable quantity must be immediately reported to federal, state and local authorities. These spills must also be reported to Degerstrom Ventures supervisors, to Monsanto and/or Safety Director.

4. Spills of ½ the reportable quantity must be immediately reported to Monsanto.

5. Any question about reporting requirements should be directed to the Safety Director.

6. Consult the Spill Prevention Control and Countermeasure plan for more details.

Storm water control

Degerstrom Ventures uses many means of containing and controlling Storm water on the property. These controls include containment ponds, drainage ditches, check dams, reclamation of disturbed ground, and many other types of Best Management Practices (BMPs). Any operations or incidents that may impact any of these must be approved or immediately corrected.

Any questions regarding Storm water Control should be directed to Degerstrom Ventures Supervisors or the Safety Director.

Storm Water Pollution Prevention

Degerstrom Ventures and Monsanto have a Storm Water Pollution Prevention Plan that covers the operations at both the Enoch Valley and South Rasmussen Mines. This plan is designed to meet the NPDES permits issued for the properties. This plan is constantly amended to address changes in the operations of the two mines. The volume of the material in this plan makes it an excellent resource to refer to when dealing with these types of issues.

The Storm Water Pollution Prevention Plan contains numerous sections covering everything from the Pollution Preventions Team and Site Description to Best Management Practices and Certifications. Maps, inspection reports, internal compliance evaluations, training records and many other things are maintained in this very large document. Questions regarding storm water discharge and pollution prevention shall be directed to members of the Pollution Prevention Team. Contact your CMR who will direct you to a team member.

Before any work is conducted that may effect any of the storm water systems or any activities that may have the potential to discharge pollutants to the waters of the United States, contact Degerstrom Ventures supervisors or a member of the Pollution Prevention team, before proceeding with the work. Answers to most questions regarding Storm Water Pollution Prevention are addressed in the Plan.

Spill Prevention, Control and Countermeasures

Degerstrom Ventures' Spill Prevention, Control and Countermeasures Plan (SPCC Plan) to assure the products used and stored at mine sites that could become pollutants if released, will not contaminate the groundwater or waterways in the surrounding area. This plan was developed to meet the requirements of 40 CFR 112.7 and other Federal, State and local regulations. The procedures, inspections and training in this plan have been designed and implemented to assure compliance with regulations.

It is important to know the reportable quantities for all chemicals being used on all projects. A reportable quantity is the amount of a substance, which, if released to the environment, triggers state or federal reporting requirements.

The following requirements shall be addressed in the event of a release/spill:

- Spill containment and cleanup materials shall be onsite and accessible at all time for any chemicals that are on the property.
- Spills of any chemical shall be immediately contained, reported to Degerstrom Ventures supervisors, and then cleaned up.
- Any spill of a reportable quantity must be immediately reported to federal, state and local authorities. These spills must also be reported to Degerstrom Ventures supervisors, to Monsanto and/or Safety Director.
- Spills of ½ the reportable quantity must be immediately reported to Monsanto.
- Any question about reporting requirements should be directed to the Safety Director.
- Consult the Spill Prevention Control and Countermeasure plan for more details.

Knowing these requirements before any work is carried out is necessary to preventing or reducing the impact of any potential problems that may occur. Contact the supervisors or the SPCC Plan with any question regarding these areas.

II. QUARRY

Working safely is a condition of employment at this plant. Each employee (Monsanto & Contractor) must comply with the plant's safety rules and policies. Knowledge of these specific rules and policies is mandatory in order to perform work safely. In general, plant rules are provided to help ensure everyone's safety. The following site-specific rules are provided to address specific safety concerns that are unique to our plant.

1. The best insurance against incidents and injuries:

    c) Know the job, the pertinent safety rules and area hazard
    d) Keep focused and your mind on the work at hand.
    c) Use common sense.
    f) If you can't do it safely, don't do it.
    g) If you don’t know, don’t be afraid to ask.

2. Only approved hard hats (ANSI 289.1-1969) shall be worn.

3. Long hair below the nape of the neck must be pinned up or worn in a ponytail.

4. Radios, televisions, and cameras require permission from the Monsanto Site Manager before being brought onto Monsanto property. The use of a cell phone camera for taking pictures requires permission from the Monsanto Site Manager.

5. All individuals have a direct responsibility to immediately report unsafe acts or conditions to supervision. If a potential injury is imminent, an attempt must be made to stop the unsafe act or condition, and report it through the use of the corrective action form.

6. It is the responsibility of the CMR to explain area hazards to the contractor before the contractor performs any work.

7. All "Hot" work will cease if the plant disaster alarm is sounded. (This includes cigarette smoking).

8. Eating or drinking is prohibited in production areas (designated eating areas are provided).

9. Always use handrails when going up and down stairs. Remember the 3-point contact.

10. Objects or equipment must never be placed within 3 feet of electrical boxes or disconnects.

11. Equipment shall not be operated within 15 feet of power lines.

12. A full-face cutting hood or a face shield with goggles are required when using a cutting torch.

13. A face shield with goggles are required when doing any kind of grinding, cutting, sanding, water blasting, sawing, hammering or chipping that might have the potential for flying debris.

14. No one under the age of 18 may work on Monsanto property. This includes contractors and sub contractors.

15. Contractors should avoid strains when lifting by keeping their back as nearly upright as possible, using leg muscles instead of the back and stomach muscles. They should not attempt to lift more than can be safely handled.

PERSONAL CONDUCT:

Certain rules of personal conduct on the job are necessary for the successful operation of any organization. Some of the things that are prohibited while on Monsanto property are:

1. Smoking at Safety Meetings, in offices, or at any Monsanto function being conducted indoors.

2. Bringing intoxicating liquor or narcotics, or entering the property under the influence of liquor or drugs, drinking or using narcotics.

3. Bringing firearms or any type of explosive into the plant unless approved by the Site Manager.

4. Engaging in fights, horseplay, practical jokes or indecency.

5. Willfully damaging Monsanto or personal property.

6. Using threatening or abusive language toward fellow employees or supervision.

7. Stealing.

8. Gambling.

9. Posting notices on company property without prior approval of Monsanto Management.

The above general rules cannot possibly cover all situations that might arise. As a rule of thumb however, it can be assumed that contractor/visitors are not to engage in any activity that interferes with another employee's or group of employees work, or engage in activity that interferes with the normal continuity of plant operations or the maintenance of order on its premises.

JEWELRY POLICY:

1. Rings, metal band watches, bracelets and necklaces will not be worn in the quarry or mine.

2. Rings, metal band watches, bracelets and necklaces will not be worn when performing maintenance/electrical work on Monsanto property.

3. Hoop: earrings, nose-rings and brow-rings will not be worn at the mine, quarry, or when performing maintenance/electrical work on Monsanto property.

4. Stud jewelry is allowed.

5. Medical alert necklaces and bracelets are allowed, and will be kept under clothing when performing maintenance.

Environmental Policy

All federal and state environmental laws and regulations must be followed at all times. All Washington Group International and Monsanto rules must also be followed when conducting work at, around or for the Quarry. Any questions regarding any environmental requirements should be directed to Washington Group International supervisors or the Safety Supervisor.

The Monsanto Silica Quarry is subject to the Clean Air Act and the Rules of Control of Air Pollution in Idaho. More specifically, the operation of the mines must comply with the general air permits. Consult these permits for further details

There are three main areas involving environmental protection that must be addressed:

- Chemical use and disposal
- Spill response, reporting and clean-up
- Storm water control

Knowing the requirements of these three areas before any work is carried out is necessary to preventing or reducing the impact of any potential problems that may occur. Contact the supervisors with any question regarding these areas.

Chemical use and disposal

- The Safety Supervisor or the Purchasing Department must approve all chemicals before being used.

- MSDS inventories of all chemical must be provided to the Safety or Purchasing Department, and on the job site.

- All chemicals must be properly labeled and stored at all times.

- Disposal of any chemicals shall be done in accordance with all federal, state,

and local regulations.

- Contractors shall notify Washington Group International of all chemicals that will be brought on site and provide MSDS for all chemicals prior to beginning work.

Spill response, reporting and clean-up

- Spill containment and cleanup materials shall be onsite and accessible at all time for any chemicals that are on the property.

- Spills of any chemicals shall be immediately contained, reported to Washington Group International supervisors, and then cleaned up.

- Any spill of a reportable quantity must be immediately reported to federal, state and local authorities. These spills must also be reported to Washington Group International supervisors, to Monsanto and/or Safety Supervisor.

- Spills of ½ the reportable quantity must be immediately reported to Monsanto.

- Any question about reporting requirements should be directed to Monsanto supervision or the WASHINGTON GROUP INTERNATIONAL Safety Supervisor.

- Consult the Spill Prevention Control and Countermeasure plan for more details.

Storm water control

Washington Group International uses many means of containing and controlling storm water on the Silica Quarry. These controls include containment ponds, drainage ditches; check dams, reclamation of disturbed ground, and many other types of best management practices (BMPs). Any operations or incidents that may impact any of these must be reported to Washington Group International and Monsanto and be immediately corrected.

Any questions regarding storm water control should be directed to Monsanto supervision, WASHINGTON GROUP INTERNATIONAL supervisors or the Safety Supervisor

Spill Prevention, Control and Countermeasures

Washington Group International' Spill Prevention, Control and Countermeasures Plan (SPCC Plan) is designed to assure the products used and stored at Silica Quarry that could become pollutants if released, will not contaminate the groundwater or waterways in the surrounding area. This plan was developed to meet the requirements of 40 CFR 112.7 and other Federal, State and local regulations. The procedures, inspections and training in this plan have been designed and implemented to assure compliance with regulations.

It is important to know the reportable quantities for all chemicals being used on all projects. A reportable quantity is the amount of a substance, which if released to the environment, triggers state or federal reporting requirements.

The following requirements shall be addressed prior to and in the event of a release/spill:

- Spill containment and cleanup materials shall be onsite and accessible at all time for any chemicals that are on the property.

- Spills of any chemicals shall be immediately contained, reported to Washington Group International supervisors, and then cleaned up.

- Any spill of a reportable quantity must be immediately reported to appropriate federal, state and local authorities. These spills must also be reported to Monsanto and WASHINGTON GROUP INTERNATIONAL Supervision.

- Spills of ½ the reportable quantity must also be reported to Monsanto as soon as safely practical and in no case more than 24 hours after the event.
- Any question about reporting requirements should be directed to your Monsanto supervisor or the WASHINGTON GROUP INTERNATIONAL Safety Supervisor.

- Consult the Spill Prevention Control and Countermeasure plan for more details.

Knowing these requirements before any work is carried out is necessary to preventing or reducing the impact of any potential problems that may occur. Contact the appropriate supervisors or the SPCC Plan with any question regarding these areas.

III. OFF-SITE PROPERTIES

Working safely is a condition of employment at this plant. Each employee (Monsanto & Contractor) must comply with the plant's safety rules and policies. Knowledge of these specific rules and policies is mandatory in order to perform work safely. In general, plant rules are provided to help ensure everyone's safety. The following site-specific rules are provided to address specific safety concerns that are unique to our plant.

1. The best insurance against incidents and injuries:

    a. Know the job, the pertinent safety rules and area hazard
    b. Keep focused and your mind on the work at hand.
    c. Use common sense.
    d. If you can't do it safely, don't do it.
    e. If you don’t know, don’t be afraid to ask.

2. Only approved hard hats (ANSI 289.1-1969) shall be worn.

3. Long hair below the nape of the neck must be pinned up or worn in a ponytail.

4. Radios, televisions, and cameras require permission from the Monsanto Site Manager before being brought onto Monsanto property. The use of a cell phone camera for taking pictures requires permission from the Monsanto Site Manager.

5. All individuals have a direct responsibility to immediately report unsafe acts or conditions to supervision. If a potential injury is imminent, an attempt must be made to stop the unsafe act or condition, and report it through the use of the corrective action form.

6. It is the responsibility of the CMR to explain area hazards to the contractor before the contractor performs any work.

7. All "Hot" work will cease if the plant disaster alarm is sounded. (This includes cigarette smoking).

8. Eating or drinking is prohibited in production areas (designated eating areas are provided).

9. Always use handrails when going up and down stairs. Remember the 3-point contact.

10. Objects or equipment must never be placed within 3 feet of electrical boxes or disconnects.

11. Equipment shall not be operated within 15 feet of power lines.

12. A full-face cutting hood or a face shield with goggles are required when using a cutting torch.

13. A face shield with goggles are required when doing any kind of grinding, cutting, sanding, water blasting, sawing, hammering or chipping that might have the potential for flying debris.

14. No one under the age of 18 may work on Monsanto property. This includes contractors and sub contractors.

15. Contractors should avoid strains when lifting by keeping their back as nearly upright as possible, using leg muscles instead of the back and stomach muscles. They should not attempt to lift more than can be safely handled.

PERSONAL CONDUCT:

Certain rules of personal conduct on the job are necessary for the successful operation of any organization. Some of the things that are prohibited while on Monsanto property are:

1. Smoking at Safety Meetings, in offices, or at any Monsanto function being conducted indoors.

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4. Engaging in fights, horseplay, practical jokes or indecency.

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4. Stud jewelry is allowed.

5. Medical alert necklaces and bracelets are allowed, and will be kept under

clothing when performing maintenance.

Start-up Safety Procedures

1. Perform JSAs (Job Safety Analysis) prior to beginning any non-routine work i.e. changing or repairing cables, replacing hydraulic hoses, etc.

2. Perform safety audits of the job site weekly.

   a. Verify, by collecting a copy of completed inspection form, that contractor is performing daily vehicle and equipment inspections.

Hazardous Material

1. A list of any hazardous material, to be brought on site, is to be furnished to CMR prior to commencing work.

2. Each job site container is to be properly labeled and stored.

3. A MSDS is to be furnished to CMR for each material and a copy is to be kept at the drill site.

4. Each worker is to be familiar with the hazards of each material and how to safely use, handle and store the material.

6.0 Contractor/Guest ES&H Site Guidelines

6.3.10 ABRASIVE BLASTING

1. A respirator is required that is constructed so that it covers the wearer's head, neck, and shoulders to protect the wearer from rebound abrasive.

2. Operators shall be equipped with heavy canvas or leather gloves and aprons or equivalent protection to protect them from the impact of abrasives.

3. The Environmental Department must be notified before abrasive blasting is conducted. Insure that your CMR has contacted the Environmental Department.

4. Dust shall not be allowed to accumulate on the floor or ledges outside of an abrasive-blasting enclosure, and dust spills shall be cleaned up promptly. Aisles and walkways must be kept clear of steel shot or similar abrasive, which may create a slipping hazard.

6.0 Contractor/Guest ES&H Site Guidelines

6.3.11 HIGH PRESSURE WATER BLASTING

1. A hazardous work permit is required to be filled out prior to work. Your assigned CMR will provide you with this information.

2. Specific PPE is required for this type of work.

    a. Water Armor (turtle skin)

    b. Full slicker suit (Aluminized Clothing in Phosphorus Applications)

    c. Face shield

    d. Rubber gloves or Kevlar rubber coated gloves

    e. Leather spats

    f. Hearing Protection

3. Whip checks are required and must be used at all times.

4. Ten-foot area surrounding pressurized hose must be barricaded or hose contained within a shielded device. (If hose is not shielded anyone inside of the 10 foot barricade will be required to use the PPE listed in Step 2 of this procedure.)

5. All foot valves must require double action to activate or be shielded in such a way as to prevent inadvertent operation.

6. Shotgun triggers must include a safety lock or be the dual hand design.

7. Shotgun lance must be a minimum of at least 36 inches. Exceptions to this policy require approval from CMR, Safety Department and Area Supervisor.

8. Water blasting equipment must be operated by at least two trained operators. Pump operator must remain within 25 feet of pump when in operation.

9. All operators must have in their possession a Medical Emergency card. This card must contain information relating to treatment of potential injuries from water blasting activities.

10. Pump must be disengaged before mole is either inserted or removed from pipe.

6.0 Contractor/Guest ES&H Site Guidelines

6.3.12 WELDING, CUTTING AND BRAZING

1. Employers shall instruct employees in the safe use of welding equipment.

2. Proper precautions (isolating welding and cutting, removing fire hazards from the vicinity, providing a fire watch) for fire prevention shall be taken in areas where welding or other “hot work” is being done.

3. A hot work permit must be filled out and kept at the work area.

4. Defective cables shall be replaced or repaired.

5. The proper PPE must be worn while performing hot work (see your assigned CMR or safety department for specifics).

Hot Work Personal Protective Equipment Requirements

General Hot Work:

1. Head/Neck Protection:
   a. Full Face Shield
   b. Welding: Lens shade 10-14
   c. Cutting: Lens shade 3-6

2. Upper Torso and Arm Protection (no pockets above the waist):
   a. Full fire retardant coat, leather, Banware (brown), w/leather sleeves, silver gear, or Kevlar coveralls/jacket
   b. Kevlar wrist sleeves

3. Hand Protection:
   a. Full leather gloves with leather or fire retardant canvas gauntlet (air arcing requires welding gloves)

4. Foot Protection:
   a. All leather boots with a minimum 6” cuff height (no exposed poly/nylon portions)
   b. Spats (worn underneath pants, coveralls, overalls etc.)

5. Respiratory Protection. Consider the following options when selecting respiratory protection:
   a. Exhaust fans
   b. Fume collectors
   c. Blower fans
   d. 3M Hood
   e. Respirators
   f. 3M Hood should be worn when air arcing and plasma cutting

6. Hearing Protection:
   a. Ear plugs or muffs

Hot Work Limited to Grinding and Gas Shielded Welding:

1. Head/Neck Protection:
   a. Full Face Shield
   b. Welding: Lens shade 10-14

2. Upper Torso and Arm Protection:
   a. Kevlar Sleeves to Elbow

3. Hand Protection:
   a. All Leather Gloves

4. Foot Protection:
   a. All leather boots with a minimum 6” cuff height (no exposed poly/nylon portions)
   b. Spats (worn underneath pants, coveralls, overalls, etc.)

5. Respiratory Protection. Consider the following options when selecting respiratory protection:
   a. Exhaust fans
   b. Fume collectors
   c. Blower fans
   d. 3M Hood
   e. Respirators

6. Hearing Protection:
   a. Ear plugs or muffs

Confined Space / Overhead Hot Work:

1. Head/Neck Protection:
   a. 3M L-905 full head protection (Kevlar hood with full face shield may be substituted with supervisor approval. JSA must be signed by supervisor or designee for exception to apply).
   b. Light sensitive lens, or adequate shade protection

2. Total Body Protection:
   a. Any combination of Kevlar, leather, or silver gear that provides full body protection (no pockets above the waist)
   b. Kevlar wrist sleeves

Safety Point: Consideration of potential heat stress must be evaluated and appropriate PPE worn. (i.e. pot repair requires aluminized chaps, coat and leggings which provides better air circulation around welder)

Safety Point: Hot work conducted within confined spaces will require continuous atmospheric monitoring to ensure that workers are protected against the potential for oxygen depletion.

3. Hand Protection:
   a. Full-leather gloves with leather or fire retardant canvas gauntlet (air arcing requires welding gloves)

4. Foot Protection:
   a. All leather boots with a minimum 6” cuff height (no exposed poly/nylon portions)
   b. Spats (worn underneath pants, coveralls, overalls, etc.)

5. Respiratory Protection:
   a. 3M L-905 full head protection (respiratory protection may be provided using items listed in General Hot Work section with supervisor approval. Supervisor or designee must sign JSA when substituting for 3M Hood)

6. Hearing Protection:
   a. Ear plugs

6.0 Contractor/Guest ES&H Site Guidelines

6.3.13 SLINGS, CHAINFALLS AND COME-ALONGS

- Use softeners to protect slings from sharp edges.
- Visually inspect all rigging before and after use.
- Remove defective items to be repaired with a tag or destroy it immediately.
- Decide on acceptable rigging with the use of a pre-job risk analysis prior to rigging.
- Always use a tagline when using overhead rigging unless the tagline will create an entanglement hazard.
- Do not leave an unsecured and unattended load from hanging on a crane, hoist or chain-fall.
- Any lift over five ton or in a hazardous area (over piping) will be required to use the plants Critical Lift Plan and must be filled out prior to lifting.

MONSANTO

Crane Lift Plan

This work instruction checklist is required for all lifts exceeding (5)tons.

Location Date of lift

Load Description

Lift Description

A. **Weight:**

1. Equipment Condition New ☐ Used ☐
2. Weight empty _____lbs
3. Weight of headache ball _____lbs
4. Weight of block _____lbs
5. Weight of lifting bar _____lbs
6. Weight of slings and shackles _____lbs
7. Weight of jib _____lbs
8. Weight of headache ball on jib _____lbs
9. Weight of cable (load fall) _____lbs
10. Allowance for unaccounted material in equipment _____lbs
11. OTHER_____ _____lbs

TOTAL WEIGHT _____lbs

Source of Load Weight

_____

name plate, drawings, calculated, etc.

Weights verified by: (name)

_____

B. **Jib:**

Erect_____ Stored_____

1. Is the jib to be used? _____
2. Length of jib_____
3. Angle of jib_____
4. Rated capacity of jib_____

C. **Crane Placement:**

1. Any deviation from a smooth solid foundation in the area?

_____

_____

2. Electrical hazards in the area? _____

_____

3. Obstacles or obstructions to lift or swing?_____

_____

_____

4. Swing direction and degree (boom swing)_____

_____

D. **Cable:**

1. Number of parts of cable_____
2. Size of cable _____

Crane inspected by:_____
Functional test of crane by:_____
Designated Groundman:_____
Wind conditions at time of lift_____

E. **Sizing of slings**

1. Sling selection
   a. Type of arrangement _____
   b. Number of slings in hookup _____
   c. Sling length _____
   d. Rated capacity of sling _____
2. Shackle selection
   a. Capacity _____
   b. Shackle attached to load by: (name) _____
   c. Number of shackles _____

F. **Crane**

1. Type of crane _____
2. Crane capacity _____
3. Lifting arrangement
   a. Max. distance - Center of load to center pin of crane
   b. Length of boom _____
   c. Angle of boom at pickup _____degrees
   d. Angle of boom at set _____degrees
   e. Rated capacity of crane under most severe lifting conditions (from chart)
      1. Over rear _____lbs
      2. Over front _____lbs
      3. Over side _____lbs

   4. From chart - rated capacity of crane for this lift _____lbs

   5. Maximum load on crane _____lbs

   6. Lift is what percentage of crane's rated capacity _____%

G. **Pre-lift Checklist**

1. Matting acceptable	Yes	No
2. Outriggers fully extended	Yes	No
3. Crane in good condition	Yes	No
4. Swing Room	Yes	No
5. Head room check	Yes	No
6. Maximum counterweights used	Yes	No
7. Tag line used	Yes	No
8. Experienced operator	Yes	No
9. Experienced groundman	Yes	No
10. Experienced rigger	Yes	No
11. Radios used	Yes	No
12. Anti-two block device used	Yes	No

Note: If radios are used they must be dedicated crane radios.

Special instructions or restrictions for crane, rigging, lift etc.

Diagram crane an load placement	Diagram rigging configuration

Multiple crane lifts require a separate lift plan for each crane.

Any change in the configuration of the, placement, rigging, lifting scheme, etc. or changes in any calculations require that a new lift plan be developed.

When lifting personnel with a crane obtain the Hazardous work permit titled: Lifting Personnel with Cranes

Signatures:

Project Leader / Planner _____

Crane Operator _____

6.3.14 COMPRESSED GAS CYLINDERS

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

Compressed or liquid gas cylinders

The following rules shall be used as minimum precautions when using, handling or storing compressed or liquid gas cylinders.

1. Compressed gas cylinders shall be stored in designated areas.

2. Never move compressed gas cylinders with the regulators attached unless properly secured on a welding cart with guards in place to protect the regulators.

3. Oxygen cylinders shall not be stored in rooms or areas used or designated for storage of flammable or combustible liquids, including grease.

4. Oxygen and acetylene cylinders on portable carts shall have a ¼" metal plate between them to meet the required fire rating code.

5. Gages and regulators used on oxygen or acetylene cylinders shall be kept clean and free of oil and grease

6. To prevent accidental release of gases from hoses and torches attached to oxygen and acetylene cylinders or to manifold systems, cylinder or manifold valves shall be closed when the cylinders are moved, the torch and hoses are left unattended or the task or series of tasks is completed.

7. Compressed and liquid gas cylinders shall be secured in a safe manner to prevent falling or settling of cylinders.

8. Valves on compressed gas cylinders shall be protected by covers when being transported (or stored) and by a safe location when the cylinders are in use.

9. Compressed gas cylinders shall be kept away for sources of heat.

Compressed Air and Pressure Vessels

All boilers and pressure vessels shall be constructed, installed and maintained in accordance with the standards and specification of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code.

Reciprocating type air compressors rated over 10 hp shall be equipped with automatic temperature actuated shutoff mechanisms, which shall be set or adjusted to the compressor when the normal operating temperature is exceeded by more than 25 percent.

Air intakes on air compressors shall be installed to assure that only clean air enters the compressor.

Air receiver tanks shall be equipped with at least one automatic pressure relief valve and pressure gauges to accurately measure the pressure within the tank.

A licensed inspector shall inspect all compressed air receiver tanks and unfired pressure vessels every 3 years. Records of the inspections shall be maintained.

Repairs to pressure vessel, pressurized systems, receivers, or compressed air equipment shall not be carried out until all of the pressure has been released.

At no time shall compressed air be directed toward a person.

Safety chains, whip-checks or other appropriate locking device shall be used at connections of air lines larger that ¾ inch inside diameter or larger.

II. QUARRY

Refer to Mine

III. OFF-SITE PROPERTIES

Refer to Mine

6.3.2 PERSONAL PROTECTIVE EQUIPMENT

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

Degerstrom Ventures requires the following PPE (Personal Protective Equipment) as a minimum, to be worn on the mine site:

- Hard Hats (ANSI approved) – Bump caps shall not be worn in place of hard hats
- Hard-toed boots
- Safety glasses with side shields

The above listed items shall be worn at all times when on the mine site with the exception of when inside the cab of a vehicle or piece of mobile equipment or inside of an office, control room or lunchroom.

Earplugs or earmuffs shall be worn in areas posted as high noise areas. Hearing protection is also highly recommended when operating, working on or around mobile equipment.

Full face-shields or welding hoods along with goggles shall be worn when grinding, hammering, chipping, etc.

When working 6 feet or more off the ground, not protected by a handrail system, workers shall wear the proper fall protection equipment. (See 6.16 Fall Protection)

OTHER PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

All contractor personnel will be required to wear Kevlar (cut resistant) gloves when engaged in the handling of sharp edged materials or when involved in cutting operations with hand tools where there is a potential for common hand/arm injuries such as cuts, scrapes, burns, etc.

Kevlar (cut resistant) gloves are required when handling utility knives, pocket knives, and any other tool involving cutting operations where there is a potential for hand injuries such as cuts, scrapes, burns, etc.

Kevlar (cut resistant) is required when engaged in any activity involving sharp edged materials such as sheet metal, fabricated steel units, insulation, with metal

coverings, etc. wherever there is a potential for arm injuries such as cuts, scrapes, burns, etc. or when handling utility knives and/or pocket knives.

II. QUARRY

The following minimum Personal Protective Equipment (PPE) is to be worn on the active Silica Quarry:

- Hard Hats (ANSI approved) – Bump caps shall not be worn in place of hard hats
- Hard-toed boots that extend at least one (1) inch above the ankle
- Safety glasses with side shields
- Reflective stripped safety vest (normally safety orange in color)
- Alternative to safety vest is reflective stripped mechanics coveralls

The above listed items shall be worn at all times when at the Silica Quarry with the exception of when inside the cab of a vehicle or piece of mobile equipment with the windows raised, or inside an office or control room.

Full face-shields or welding hoods along with goggles shall be worn when grinding, hammering, chipping, etc. (May be modified by supervisor for necessity)

When working 6 feet or more off the ground, not protected by a handrail system, workers shall wear the proper fall protection equipment. (See 6.16 Fall Protection)

OTHER PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

All contractor personnel will be required to wear Kevlar (cut resistant) gloves when engaged in the handling of sharp edged materials or when involved in cutting operations with hand tools where there is a potential for common hand/arm injuries such as cuts, scrapes, burns, etc.

Kevlar (cut resistant) gloves are required when handling utility knives, pocket knives, and any other tool involving cutting operations where there is a potential for hand injuries such as cuts, scrapes, burns, etc.

Kevlar (cut resistant) is required when engaged in any activity involving sharp edged materials such as sheet metal, fabricated steel units, insulation, with metal coverings, etc. wherever there is a potential for arm injuries such as cuts, scrapes, burns, etc. or when handling utility knives and/or pocket knives.

III. OFF-SITE PROPERTIES

Refer to Mine

6.0 Contractor/Guest ES&H Site Guidelines

6.3.5 INJURY AND ILLNESS RECORDKEEPING AND REPORTING

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

The Plant Dispensary is available for initial treatment of injuries, which occur on company property. The plant has a trained 24 Hour Emergency Response Team and EMT's for rescue work. Call your CMR or Crew Supervisor for emergency first aid support or use the plant radios to contact Monsanto Security. Be sure to give your name, the location of the injured, and if possible, the extent of the injury. Go or send someone to direct the emergency crew to the exact location of the injury.

1. Contractors/visitors are required to report all injuries, no matter how small, to the Safety Department. A First Aid card (blue/Contractors) must be filled out immediately for any first aid or injury. The first aid cards are located in the Administration Building Dispensary at the Monsanto Soda Springs Plant. The CAF (corrective action form) is attached and must also be submitted.

2. Contractors are required to submit a monthly Man-hour & Illness/Injury Report to the Contractor Safety Specialist.

II. QUARRY

The Plant Dispensary is available for initial treatment of injuries, which occur on company property. The plant has a trained 24 Hour Emergency Response Team and EMT's for rescue work. Call your CMR or Crew Supervisor for emergency first aid support or use the plant radios to contact Monsanto Security. Be sure to give your name, the location of the injured, and if possible, the extent of the injury. Go or send someone to direct the emergency crew to the exact location of the injury.

1. Contractors/visitors are required to report all injuries, no matter how small, to the Safety Department or on shift EMT. A First Aid card (blue/Contractors) must be filled out immediately for any first aid or injury. The first aid cards are located in the Administration Building Dispensary. The CAF (corrective action form) is attached and must also be submitted.

2. Contractors are required to submit a monthly Man-hour & Illness/Injury Report to the Contractor Safety Specialist.

III. OFF-SITE

1. All accidents, near misses, safety-related incidents and spills are to be reported promptly to the CMR.

2. Contractors/visitors are required to report all injuries, no matter how small, to the Safety Department. A First Aid card (blue/Contractors) must be filled out immediately for any first aid or injury. The first aid cards are located in the Administration Building Dispensary at the Monsanto Soda Springs Plant. The CAF (corrective action form) is attached and must also be submitted.

3. Contractors are required to submit a monthly Man-hour & Illness/Injury Report to the Contractor Safety Specialist.

6.0 Contractor/Guest ES&H Site Guidelines

6.3.7 HAND TOOLS

1. Contractor's tools shall be of good industrial grade.

2. Materials or tools shall not be dropped or thrown from platforms, structures or scaffolds.

3. No one is permitted to carry pipe, tapping bars, or other long objects on his/her shoulders through doors, past blind corners or up steps, except when there are persons located at each end of the object being carried.

4. Each contractor shall, at all times, maintain good housekeeping standards an integral part of his/her work.

5. Containers five gallons or less used to store and/or dispense flammable or combustible liquids require the following: Only an UL approved metal container with a spring closing lid, a flash-arresting screen, and spout cover designed to safely relieve internal pressure.

6. Using a splice called the “Hasty Eye or Molly Hogan” on a wire cable is strictly prohibited. This splice is limited to about 70 percent of the strength of the wire rope. This method of splicing is used to create a loop in the wire rope. The cable is split and the ends are wrapped back around and woven into the cable.

7. All electric power tools must be double insulated or equipped with a three-pronged plug and inspected annually.

8. Portable machinery and power tools must have a spring loaded power switch installed which allows the tool to automatically cut off when not in use.

9. If working in potentially explosive atmospheres, use only approved tools for that type of work.

10. Employers shall not issue or permit the use of unsafe hand tools, including tools that may be furnished by employees or employers.

11. All hand tools must be properly maintained.

12. The wooden handles of tools shall be kept free from splinters or cracks and shall be kept tight in the tool.

13. Impact tools shall be kept free of mushroomed heads.

14. You should wear cut resistant gloves when handling knives and other sharp objects.

15. Contractor knives must meet or exceed the design of Soda Spring Site approved knives listed below. For example, the Stanley auto-retractable performs like the Martor and may be used. General locking blades should have the same design characteristics that the Klein has (locking mechanism on the spine) not at the hinge where material gathers and obstructs the locking mechanism.

16. The following 4 locking knives are approved for general use without supervisory approval:

    - 10306229 - Klein Locking - Small
    - 10306230 - Klein Locking - Medium
    - 10306231 - Klein Locking - Large
    - 10401303 - Bucklite folding lock blade w/clip (3")

17. The following 3 knives are approved for specialized use with supervisory approval:

    - 07152 - Martor utility auto-retracting straight pointed tip. (Uses include: mailroom, storeroom & cutting drywall)
    - 04152 - Martor utility auto-retracting hooked tip. (Uses include: electrical wire insulation removal)
    - 10407370 - Klein Locking Electricians (2.5") - (for specialized electrician use only)

18. Food preparation knife use is not covered by this policy and may occur anywhere it is designated (sanitary) to do so.

19. Personal knives need to be left in lockers or for contractors in vehicles.

20. Belting knives (special use) will be approved by the CMR.

21. Insulator's fixed blade knives must be approved by the CMR.

22. Letter openers that have a fixed blade and are shaped like knives are approved.

NOTE: Always ensure that you use the proper tool for the job. (i.e. snips, shears, wire cutters. Retractable blade utility knives, scissors, etc.)

6.0 Contractor/Guest ES&H Site Guidelines

6.3.8 SCAFFOLDING

Scaffolds and staging must be used in a manner consistent with the Monsanto Policies. Scaffolds and staging must be inspected and receive approval prior to use. Your assigned CMR will make arrangements for a qualified scaffolding inspection. All contractors encountering, in their opinion, unsafe conditions have the responsibility to stop elevated work and lock out scaffolding and staging, until the unsafe conditions are resolved.

1. Scaffold and/or staging must be made of suitable selected planks and must be securely tied or fastened in place before they are used.

2. Scaffold and/or staging must **not** be left at the job site after the job has been completed.

3. No scaffold or staging shall be erected or used without the Department Crew Supervisor approval.

4. All persons working on scaffolding over four feet without use of adequate hand/guardrail will be required to use fall protection.

5. Scaffolding will not be left up for more than 30 days between jobs.

6. No scaffolding will be used unless approved by a competent person using the Scaffolding procedure and the Scaffolding Hazardous work Permit.

6.0 Contractor/Guest ES&H Site Guidelines

6.3.9 STAIRWAYS AND LADDERS

1. Always inspect ladders before using them as outlined in the Plant Ladder Inspection Procedure.

2. Immediately remove defective ladders from service.

3. A safety harness is required if it is necessary to perform work from a ladder at heights at or above four feet in elevation. If a safety harness is not possible to wear, a fall protection plan must be completed and if necessary signed by a safety representative and area leader.

4. Only one person at a time is allowed on a ladder.

5. Do not “jump” or “outreach” any ladder. If a ladder cannot be tied off, a second person must support the ladder.

6. The angle, which a ladder is placed, should be as follows: The base of the ladder is placed one-fourth the length of the ladder from the object against which it is leaning.

7. The top of a ladder must extend no less than three feet above the supporting object when used for access to an elevated work area.

8. After a ladder's extension section has been raised to the desired height, the safety togs or latches shall be engaged and the extension rope secured to a ring on the base section of the ladder before use.

9. Extension ladder sections shall not be used separately.

10. Stepladders shall be positioned with all four feet in contact with a firm, level surface. Stepladder spreaders shall be locked in place.

11. Do not use a stepladder as a straight ladder.

12. Don't climb higher than the third rung from the top on straight, extension or

step ladders. **NOTE:** The top-most platform or rung is rung #1.

13. Ladders shall be tied off when used close to the edge of an elevated platform, roof or floor opening.

6.0 Contractor/Guest ES&H Site Guidelines

6.4.0 FIRE PROTECTION AND PREVENTION

1. Fire extinguishers shall be provided and located within 100 feet from any work location.

2. A fire extinguisher must be provided in each vehicle.

3. Fire extinguishers must be inspected monthly and annually.

4. A Fire Impairment Permit is required to be used when any fire suppression systems are temporarily going to be impaired.

5. All employees must be trained in the proper use of fire extinguishers if they are required to use one.

6. Fire watch designee must be properly trained and competent.

7. There must be a hot work permit filled out prior to any hot work. If there are any questions please call Safety department.

8. All tanks, drums, and vehicles need to be grounded or bonded (to one another) when transferring flammable/combustible liquids.

6.4.4 MONSANTO SECURITY POLICY

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

1. Contractors and their employees normally will be governed by the terms of their particular contract. In all cases, contractor's personnel are confined to the area in which they are working.

2. Contractors and their employees will use the entrance and exit gate, which has been designated by Monsanto.

3. Service Representatives and Service Company employees who are not under a formal contractual arrangement will be registered in and out. The plant guards will administer the above policy and enforce the necessary rules required to carry it out.

4. An approved Material Pass will be required for contract employees and visitors when leaving company property with bundles, packages, boxes, materials, equipment, etc. Plant guards may periodically inspect packages even though the individual may have a Material Pass. Lunch boxes do not require a pass, but must be opened for inspection upon request. Vehicles leaving the plant are also subject to inspection at any time.

5. Each contractor's employees and/or visitors will be required to identify him or herself when entering or leaving company property. This shall include signing the log in the guard station.

6. Only the Plant Manager or their delegate can authorize the use of cameras, camera equipment or cell phone cameras. They will not be permitted within the plant without this authorization. Any photographs or video taken of the facilities will need the same authorization.

II. QUARRY

Refer to Mine

III. OFF-SITE PROPERTIES

Refer to Mine

6.0 Contractor/Guest ES&H Site Guidelines

6.5.1 CONFINED SPACE ENTRY

1. A confined space permit must be filled out before entering into any vessel or designated confined space area.

2. No entry will be made until proper clearance has been received.

3. No entry will be made with less than two people.

4. All lockouts made in connection with the entry will be made by the person or persons entering the enclosure.

5. A confined space retrieval system (tripod or other suitable means) will be used if hazards are identified on the work permit or if conditions in the confined space may have changed.

6. Atmospheric testing must be done before, during, and after any entry.

7. The entry team and effect employees must review the confined space procedure prior to any entry to ensure full comprehension of the procedure.

8. A trained confined space attendant must be present at all times when the confined space is occupied. Contact your CMR if there are any questions or clarifications needed prior to entry.

6.0 Contractor/Guest ES&H Site Guidelines

6.5.3 LOCKOUT AND TAGGING

Purpose:

This procedure establishes the minimum requirements for the lockout or tagout of energy isolating devices. It shall be used in conjunction with other safety procedures (vessel entry, confined space entry, etc.). It shall be used to ensure that machinery or equipment is isolated from all sources of potentially hazardous energy and locked out, or tagged out before employees perform servicing or maintenance activities where the unexpected start-up, or release of stored energy could cause injury.

This procedure is designed to comply with the requirements of 29 CFR 1910.147 (Lockout/Tagout), and the program requirements of paragraph 29 CFR 1910.333 (b), Electrical Safety Related Work Practices.

Scope:

The primary focus of this procedure is to ensure that each person involved in the servicing, or maintenance of machinery or equipment will be protected from all forms of potentially hazardous energy by a lock or tagout tag which that person controls. All portions of this procedure are intended to accomplish this goal.

1. Training shall be provided to ensure that employees understand the purpose and function of the energy control programs and that the knowledge and skills required for the safe application, employees acquire usage and removal of energy controls.

2. Contractor employees shall receive training equivalent to that required for location personnel performing similar tasks.

3. Documentation of training is kept in the Safety Department on all employees that are affected by the Lockout/Tagout Procedure.

6.5.4 ELECTRICAL SAFETY

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

1. Employers must provide either ground-fault circuit interrupters (GFCIs) or assured equipment grounding conductor program to protect employees from ground-fault hazards at construction sites.

2. Cords must not suspend temporary lights, unless they are so designed.

3. Lights for illumination must be protected from breakage and metal shell sockets must be grounded.

4. Worn or frayed electric cords or cables shall not be used.

5. Keep extension cords out of water, mud and at least seven feet above walkways.

6. Workspaces, walkways and similar locations shall be kept clear of cords.

7. Ensure that all mobile equipment is at least 15 feet from overhead power lines.

8. Barriers or other means of guarding must be used to ensure that workspace for electrical equipment will not be used as a passageway during periods when energized parts of equipment are exposed.

9. Contractor shall comply with Soda Springs Plant Electrical Site Work Procedure.

Energized Electrical Work Procedure:

Any work performed on electrical equipment should be completed with the equipment in a non-energized, electrically safe condition. However, it is recognized there may be instances where this is either not possible or not feasible. Connecting or disconnecting an energized electrical conductor carrying more than 50 volts requires an Energized Electrical Work permit (See example appendix A) Contractors which elect under the direction of the CMR to perform

this type of work shall utilize the Energized Electrical Work Permit to address the following requirements:

- Authorization to perform this work shall be granted by a member(s) of site management,
- Appropriate PPE shall be utilized to prevent electric shock as well as serious injury should an arc flash occur, and
- A “standby individual” shall monitor the activities of the individual working on the energized circuit. This individual must be able to quickly summon assistance if needed.
- Testing a circuit to troubleshoot or confirm it is de-energized does not require an Energized Electrical Work Permit.

Whenever work is performed on or near a 50-volt (or higher) circuit which has not been confirmed to be de-energized, the following PPE shall be worn:

- Insulating gloves, or, tools/test instruments which provide an equivalent level of insulation (these items shall be rated for the voltage –or higher-normally carried by the circuit)
- Safety glasses
- Hard Hat

PPE Requirements for Arc Flash

Where there is risk of an arc flash, personal protective equipment (PPE) shall be worn to prevent injury. The appropriate PPE shall be selected by using the arc flash hazard rating label attached to the specific equipment being worked on. If label is not present, PPE may be selected using the criteria shown in Appendix B, The current edition at NFPA 70E, Standard for Electrical Safety in the Workplace, contains additional information on electrical safe work practices, arc flash hazards, and personal protection equipment.
Within Monsanto, the probability of a hazardous arc flash with circuits of 240 volts (or less) supplied from a 125 kVA (or less) transformer is viewed to be minimal. Thus, work on these systems carries no arc flash PPE requirements.

APPENDIX A - Energized Electrical Work Permit Example

Area/Location: _____
Date: _____
Energized voltage present: _____
Brief description of work to be done:_____
_____
_____
_____

What PPE will be utilized:
Insulating mat _____ Insulating gloves _____
Insulated tools _____ Safety glasses _____
Flame-resistant clothing Rating_____ Arc flash suit _____ Other _____

Electrically Qualified Person_____Date:_____
Electrically Qualified Person _____Date: _____
Emergency communication established:
Phone _____ Radio _____ Other _____

Approval:
E&I Crew Supervisor or
Elect. Qualified Project Engineer_____ Date: _____
Area OCC_____ Date: _____

APPENDIX B - PPE EXAMPLE

NOTE: The voltages shown are the maximum voltage between any two conductors.

Energized system voltage ….	PPE which should be selected ….
50 – 300 volts	Individuals working near exposed live, or not confirmed to be de-energized, electrical circuits shall utilize insulated tools or gloves rated for the maximum voltages to which they could be exposed. Additionally, safety glasses and a hard hat are worn.
300 – 600 volts	Individuals working near exposed live, or not confirmed to be de-energized, electrical circuits shall utilize insulated tools and gloves rated for the maximum voltages to which they could be exposed. Additionally, safety glasses, hard hat and an arc-rated face shield/flame retardant clothing (e.g. flame retardant coveralls worn over normal work clothing) with a minimum rating of 8 cal/cm^2 must be worn.
600+ volts	The requirements for work near exposed live, or not confirmed to be de-energized, electrical systems with more than 600 volts is not covered in this document. The hazards associated with these systems are complex and considerable experience is required to perform this work safely. Thus, great care is needed whenever work is performed on these systems and qualified personnel are essential for any type of work activity.

Electricity

The purpose of these rules is to prevent injury to personnel and damage to equipment. These guidelines are in accordance with the National Electrical Codes.

MSHA has several pages of regulations relating to electricity and it use. These regulations are too numerous to list in this section, but can be referenced in 30 CFR 56 Subpart K (56.12001 – 56.12071). These regulations & rules must be understood and followed at all time when working at the mine or quarry.

1. In case of an electrical fire use a dry chemical fire extinguisher.

2. Repairing, connecting, disconnecting, grounding, wiring, splicing, and testing of electrical equipment shall be performed by qualified personnel. Report all defects to your supervisor.

3. When circuits are worked on, they must first be de-energized, locked-out, tagged and tested.

4. Electrical switch rooms are not to be used for storage of materials and must be kept clean.

5. Proper barriers must be installed when covers or doors of switchgears are removed to provide access to energized conductors or buss bars.

6. When in operation, electric motors must never be cleaned with water, air or steam.

7. To prevent injury when energizing a motor control circuit, always stand to the side of the breaker in case a fire or malfunction should occur inside the panel. Never continuously bump a control circuit switch on and off.

8. An electrical switch must always be closed rapidly and securely.

9. Never stand in water when operating an electrical switch.

10. Employees must wear the Class-B hardhats provided by the company. Anyone wearing an aluminum hardhat shall be barred from entering an area where contact with electrical wiring or apparatus is possible.

11. Never use an aluminum ladder near electrical circuitry.

12. Generators must be properly grounded and ground tested for adequate grounding yearly.

13. Do not handle high voltage electric cable.

14. Make certain that electrical switches have proper cover plates.

15. Always determine where underground electric cables are located before starting to excavate.

16. Report any bare exposed electrical wires immediately to your supervisor.

17. Electrical cables shall not be hung over nails or metal having sharp edges. Do not drive equipment over electrical cables.

18. Portable electrical tools shall be double insulated or equipped with three-wire cord, three prong plugs and shall not have locking triggers.

19. Extension cords shall be three-wire cord, have three-prong plugs, and will be used in a manner to prevent contact with water, or oil, and to prevent tripping hazards.

20. Extreme caution and a minimum of ten (10) feet clearance must be used when operating heavy equipment under or near high voltage power lines.

21. If you are operating equipment and it becomes energized through contact with electric lines, do not attempt to jump clear of the equipment until power lines are de-energized.

22. Never remove another person's lock or tag from the switchgear. Only the person who places that lock on a piece of machinery should have the key to that lock.

23. Make certain electrical cord, wiring, etc., are used at their rated capacities.

24. Extension Cords shall not be used as permanent wiring.

25. Suitable danger signs shall be posted at all major electrical installations.

26. Proper Lock-out / Tag-out procedures must be followed when working on electrical equipment and electricity. See section 6.13 Lock-out/Tag-out.

II. QUARRY

Refer to Mine

III. OFF-SITE PROPERTIES

Refer to Mine

6.0 Contractor/Guest ES&H Site Guidelines

6.5.5 HOT WORK PERMIT

1. Prior to performing Hot Work your CMR will provide you with an Execution Work permit/Envelope.

   a. Using the work execution envelope you can determine if a hot work permit will be needed.

2. Anytime a hot work permit is issued at a minimum, a routine fire watch is required.

3. Cylinders should never be taken inside tanks or vessels in which work is being done.

4. Empty cylinders or drums must not be used as a workbench for cutting or welding.

5. Do not ground machines to handrails, stairs, or projections from control rooms, etc… or on any active process line, motor, or conduit.

6. Portable welders must not be moved until the power is shut off.

7. Before starting any Hot Work, read the Hot Work Procedure and Permit with the equipment operator or your assigned CMR.

6.0 Contractor/Guest ES&H Site Guidelines

6.5.7 TRENCHING AND EXCAVATION

1. Before any excavation, trenching, or digging of any depth is performed an Excavation Permit (yellow) must be filled out. Contact your CMR who will obtain an execution permit for you. Appropriate personnel must sign the Excavation permit before work is executed. Your CMR will work with you to ensure underground lines are identified and marked.
2. Every employee involved in excavation work must read and understand the “Procedure for Construction or Normal plant Excavation Work Document”. Your assigned CMR will help you with this document.

6.5.9 FALL PROTECTION

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

Bucket Truck Safety

Using the Bucket Truck to conduct work on elevated lights, shovels, drills, etc. can reduce the risk of elevated work and eliminate the need for ladders and scaffolding. The risk of a potential fall is only reduced – not eliminated. While working in the Bucket Truck the use of proper fall protection equipment is still required. Body harnesses and lanyards are still required to maintain tie off when working more than 6 feet off the ground, working surface or where the potential of a fall exists.

The following steps shall be taken when preparing to use the Bucket Truck for elevated work:

1. Park the Bucket Truck on a level area adjacent to the work.
2. Chock the wheels and set the parking brake.
3. Check the area for overhead obstacles (i.e. power lines, beams, etc.)
4. Lower all the outriggers onto a firm surface and level the truck.
5. Check truck for hydraulic leaks, loose pins, bucket condition, etc.
6. Don all appropriate safety equipment – head and eye protection, body harness, etc.
7. Use caution when operating bucket; watching out for obstacles, pinch points, etc.
8. Be aware of slippery surfaces when entering and exiting the bucket.
9. After completing work, place the bucket in its proper travel position and fully retract the outriggers before moving the truck.

Some important things to remember while working from the bucket:

- Remain tied off at all times while in the bucket.
- When using the bucket to access or to egress to some type of object make certain to remain tied off at all times. Also make certain to tie off to the bucket before moving.
- Do not climb on the bucket railing to work or reach objects. Keep both feet on the bottom of the bucket.
- Do not throw things to or from the bucket. Use a rope to lower or raise tools and materials.
- Only one person in a bucket at a time.
- Do not use the bucket truck during thunderstorms. If lightning is seen on the horizon, lower the buckets and wait in the cab of the truck until the storm passes.
- Set the truck up in an area clear of heavy equipment traffic.
- High winds can present a hazard during use of the bucket truck.
- Do not over load the buckets above the rated capacity.
- Do not use the bucket boom for hoisting parts or materials. It is not a crane.

Any contractor performing work at a height of six feet or more above ground and not protected by a handrail, mid-rail, and toe board is required to wear personal fall protective equipment consisting of a body harness and one of the following:

1 Six foot lanyard with shock absorber.

2. Double lanyard with shock absorber.

3. Self-retracting lanyard (connected directly to harness).

Fall Protection Policy:

1. No climbing allowed on tractor-trailer trucks if above the six-foot limit.
2. When it becomes necessary to perform elevated work on railcars or trucks in the field, away from fall protection systems, a Pre-Job Risk Analysis must be performed and a member of the safety department must approve fall protection measures.
3. Use of the proper fall protection/arrest system is required when performing elevated work. Systems include but are not limited to:

- Static Lines
- Secure tie-off points
- Guardrail(s)
- Platform(s)
- Control Line(s)
- Safety Monitor

4. Based on the potential for severe injury and death due to a fall we require the proper use of a fall protection/arrest system. Failure to use a correct fall protection/arrest system will be regarded as a willful disregard of safety requirements. Contractor will be removed from Monsanto property.

5. For better clarification contact your CMR

MAN BASKET SAFETY:

The plant procedure for lifting personnel in a man basket must be followed. This procedure includes a test lift and a pre lift meeting with affected personnel. Personnel may only be lifted with a crane equipped with an anti two-Block system.

A Critical Lift permit shall be obtained and filled out prior to lifting personnel in a man basket and only a designated (OSHA approved) man basket shall be used.

II. QUARRY

Refer to Mine

III. OFF-SITE PROPERTIES

Refer to Mine

6.0 Contractor/Guest ES&H Site Guidelines

6.6.2 HEARING CONSERVATION

1. All areas above 85dBA will be posted with “Hearing Protection Required” signs. Employees in these areas must wear hearing protection.

2. Employees shall be trained annually on the contents of the Hearing Conservation Program.

3. Exposure to impulsive, or high impact noise shall not exceed 140-dBA-peak sound pressure level.

4. If a concern exists about noise levels, contact your CMR who can arrange a test for the sound levels in the work area.

5. Job Tasks, which exceed 100dBA TWA regardless of shift length, require double hearing protection (muffs and plugs).

6.6.3 RESPIRATOR PROTECTION

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

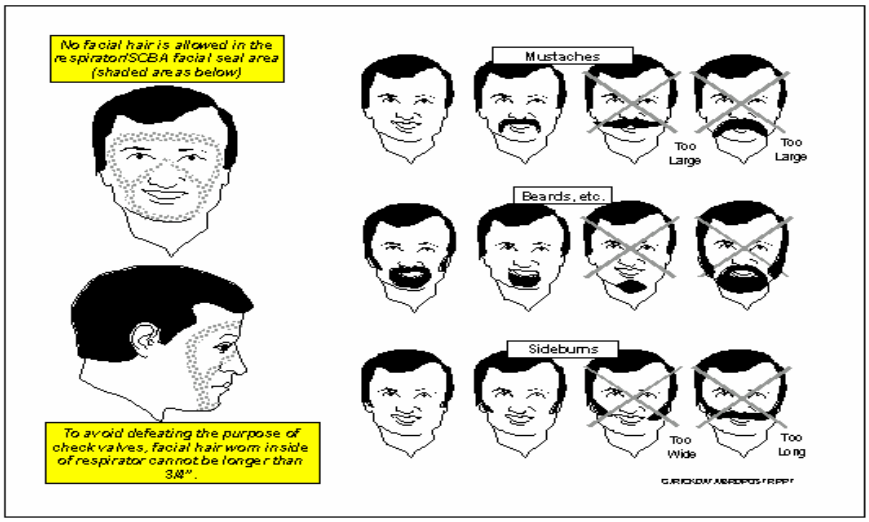
I. MINE

Respiratory Protection is required for work performed in Plant Specific areas and for various job tasks. Contractors must comply with OSHA's respiratory protection rule 1910.34, which includes, but is not limited to:

- Written Program
- Employee Training
- Medical Evaluation
- Fit Testing
- Cleaning, Storing, Maintenance of Respirator
- Facial hair in sealing surface
- Breathing air quality

Visitors/Contractors to the Mine who are not required to remain in respirator use areas may be given an escape respirator to access respirator areas.

All contractor/visitors entering the plant will follow the plant beard policy. This policy states that the seal area of the respirator must be clean-shaven so that facial hair does not interfere with the seal of a respirator.



Contractors/visitors will know and understand the hazards of the following when entering affected areas.

- Carbon Monoxide (CO)= Measure chemical with CO Monitor. A supplied air respirator is the only type of protection, which works for CO. Explosive limit 12.5-74.2%. 8 hour TWA 25 ppm. An employee shall not be in any CO area with concentrations from 25-99 ppm for more than 1 hour without wearing supplied air. Health Effects: Headache, Nausea, Dizziness, Cherry red face, Confusion, Unconsciousness. Characteristics: Colorless, odorless, tasteless gas with no warning signs.

- Phosphine (PH3)= Measure chemical with Phosphine monitor. A supplied air respirator is the only type of protection, which works for PH3. Explosive limit unknown. Health Effects: Coughing. Breathing difficulties, Nausea. Diarrhea, Chills, Tightness of the chest, May have delay effects 12 to 24 hours after exposure. Characteristics: Fishy/Garlic-like odor.

- Phosphorus (P4)= Wear an acid gas cartridge with respirator upon combustion. Characteristics: Will burn instantly with air contact, Yellowish to white in color. Can be in the form of a liquid, solid, or gas. Suspect P4 to be present when opening any valve or equipment connected with the furnace, Phos dock, CO main, waste water lines, or recycle lines. If P4 has contacted your skin or clothing immediately submerge in water. There are safety tubs located throughout the plant.

- Hydrogen Sulfide (H2S)= Measure chemical with a H2S Monitor. 8-hour TWA 10 ppm. Explosive limits 4.3-46%. A supplied air respirator is the only type of protection, which works for H2S. Health Effects: Headache, Dizziness, Upset stomach, unconsciousness. Characteristics: Rotten egg smell, May deaden sense of smell over time.

- Sulphur Dioxide (SO_2)= Measure chemical with SO2 monitor. TWA 2 ppm. Can wear an acid gas respirator at 5 ppm. Explosive limit N/A. Health Effects: Coughing, watering eyes, chest tightness, and sore throat. Characteristics: Nose and throat irritation.

II. Quarry

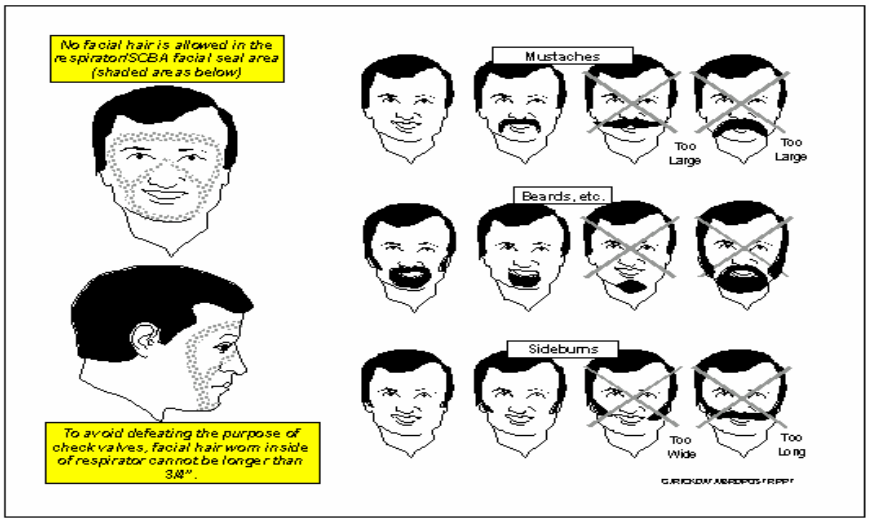
Respiratory Protection is required for work performed in Plant Specific areas and for various job tasks. Contractors must comply with OSHA's respiratory protection rule 1910.34, which includes, but is not limited to:

- Written Program
- Employee Training
- Medical Evaluation
- Fit Testing
- Cleaning, Storing, Maintenance of Respirator
- Facial hair in sealing surface

- Breathing air quality

Visitors to the Quarry who are not required to remain in respirator use areas may be given an escape respirator to access respirator areas.

All contractor/visitors entering the plant will follow the plant beard policy. This policy states that the seal area of the respirator must be clean-shaven so that facial hair does not interfere with the seal of a respirator.



Contractors/visitors will know and understand the hazards of the following when entering affected areas.

- Carbon Monoxide (CO)= Measure chemical with CO Monitor. A supplied air respirator is the only type of protection, which works for CO. Explosive limit 12.5-74.2%. 8 hour TWA 25 ppm. An employee shall not be in any CO area with concentrations from 25-99 ppm for more than 1 hour without wearing supplied air. Health Effects: Headache, Nausea, Dizziness, Cherry red face, Confusion, Unconsciousness. Characteristics: Colorless, odorless, tasteless gas with no warning signs.

- Phosphine (PH3)= Measure chemical with Phosphine monitor. A supplied air respirator is the only type of protection, which works for PH3. Explosive limit unknown. Health Effects: Coughing. Breathing difficulties, Nausea. Diarrhea, Chills, Tightness of the chest, May have delay effects 12 to 24 hours after exposure. Characteristics: Fishy/Garlic-like odor.

- Phosphorus (P4)= Wear an acid gas cartridge with respirator upon combustion. Characteristics: Will burn instantly with air contact, Yellowish to white in color. Can be in the form of a liquid, solid, or gas. Suspect P4 to be present when opening any valve or equipment connected with the furnace, Phos dock, CO main, waste water lines, or recycle lines. If P4 has contacted your skin or clothing immediately submerge in water. There are safety tubs located throughout the plant.

- Hydrogen Sulfide (H2S)= Measure chemical with a H2S Monitor. 8-hour TWA 10 ppm. Explosive limits 4.3-46%. A supplied air respirator is the only type of protection, which works for H2S. Health Effects: Headache, Dizziness, Upset stomach, unconsciousness. Characteristics: Rotten egg smell, May deaden sense of smell over time.

- Sulphur Dioxide (SO_2)= Measure chemical with SO2 monitor. TWA 2 ppm. Can wear an acid gas respirator at 5 ppm. Explosive limit N/A. Health Effects: Coughing, watering eyes, chest tightness, and sore throat. Characteristics: Nose and throat irritation.

Respiratory Protection

Inhalation is a primary route of entry of chemicals, toxins, and contaminants into the body. Respiratory protection is a very important tool to limiting or eliminating this route of entry. Air purifying respirators purify air through filters before it is inhaled into the lungs. Two types of air purifying filter cartridges are used at the quarry. Filter cartridges for dust and stacked cartridges, for dust and mists are for each contract employee to use as required on their individual fitted respirator.

Respirators with the proper cartridge filters shall be used when large areas of materials are to be spray-painted, during large welding operations where ventilation is not adequate, and when working in dusty conditions. The area known as the "Triangle" continues to require fitted respirator protection and use. Depending on the type of work and the conditions respiratory protection may be required when working in a confined space.

When working with chemicals consult the MSDS for the recommendations for respiratory protection.

III. OFF-SITE PROPERTIES

Refer to Mine

6.6.4 HAZARD COMMUNICATION

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

There are several hazardous substances used and produced in the plant that could cause serious injury or loss of life if not handled correctly. The Plant Safety Department has a complete set of Material Safety Data (MSDS) Sheets for these substances. These sheets explain First Aid procedures and proper use of protective equipment when handling these chemicals. Your CMR or Plant safety personnel can explain the use of MSDS sheets and help you locate them.

II. QUARRY

There are hazardous chemicals used at the mine and quarry that could cause serious injury or death if not handled properly. Both locations have a Haz-Com Program that covers labeling MSDS, training and other ways that miners, contractors, and visitors are warned about the hazardous chemicals stored and used on the site. Everyone that enters the property has a Right-To- Know about any hazardous chemicals to which they may be exposed. This written program complies with the Haz-Com requirements of the Mine Safety and Health Administration (30CFR47).

All chemical exposures must be reported to Monsanto supervision and the Safety Supervisor or supervisors immediately.

A current copy of this program along with the list of Hazardous Chemicals list is available at the Safety Supervisors office or onsite offices.

A chemical is determined to be hazardous if:

- It is a physical hazard or a health hazard
- The MSDS or label indicates the it is a hazard or;
- Valid scientific evidence indicates that it is a hazard.

A current list of all hazardous chemicals used and/or stored at the quarry can be found in Appendix A of the Haz-Com Program. Each hazardous chemical on this property will be clearly identified in English, exactly the same way on the list, its

container label and its corresponding MSDS. These chemicals will be identified by the name used by the department to eliminate any confusion.

Warehouse personnel or the Safety Supervisor must clear any chemicals brought onto the property. Before it can be used it must be determined if it must be placed on the Hazardous Chemical list and that there is a corresponding MSDS on file.

Labeling

- Every hazardous chemical ***should*** normally be kept in its original container.
- The label ***must*** remain legible and be in English.
- The label ***must*** identify the chemical as it is on the Chemical List.

Any hazardous chemical kept in a different container that the original must be properly labeled to identify it. That label must contain the following information:

- Clearly identify it with the correct name as it is listed on the Chemical List.
- Legible, accurate, obvious, and in English.
- Warning of any specific hazards of the chemical.
- Labels shall be replaced as necessary

Pipes carrying chemicals shall be labeled in the same manner as other chemical containers.

Contact Monsanto supervision, or the supervisors or the Safety Supervisor with questions about the use and information on the MSDS and the Haz-Com Program.

Material Storage and Handling

MSHA has a variety of regulations concerning material storage and handling. These regulations can be found in 30 CFR Part 56 Subpart O. The following are some of the rules and regulations to be followed when working at the mine:

- Supplies and materials shall not be stacked or stored in a manner, which creates tripping or fall-of material hazards.

- Materials that can create hazards if accidentally liberated from their containers shall be stored in a manner that minimizes the dangers.

- Hazardous materials shall be properly labeled and stored in approved containers.

- Chemicals shall be stored to prevent contact with each other or with other substance that could cause a reaction or produce harmful fumes or gases.

- Cylinders of compressed or liquid gas shall be secured in a safe manner.

- Protective cover shall be in place on valves of gas cylinders when being stored or transported.

    - These valves shall also be protected by a safe location when the cylinders are in use.

- Containment shall be provided for substances that may cause environmental concerns if a leak were to occur.

Bins, hoppers, silos, tanks or surge piles, where loose unconsolidated materials are stored, handled or transferred shall be:

- Equipped with mechanical devices or other effective means of handling materials so that during normal operations workers are not required to enter or work where they are exposed to entrapment by the caving or sliding of material.

- Equipped with supply and discharge operating controls.

    - The controls shall be located so the spills or overruns will not endanger persons.

- Equipped with approved walkways if it is necessary to walk around or over them.

If persons are required to enter bins, hoppers, silos, tanks, or surge piles for maintenance or inspection purposes, ladders platforms or scaffolding shall be provided. No person shall enter these areas until the supply and discharge of material has stopped and been locked out. Persons entering these areas shall wear a safety harness equipped with a lifeline. A second person similarly equipped shall be stationed near where the lifeline is fastened and shall keep it tight with minimal slack. Confined space procedures must be followed when entering these areas.

When hoisting materials:

- Taglines shall be used for loads that require steadying or guidance while suspended.
- The proper type of sling for the material being hoisted shall be used.
- Workers shall stay clear of suspended loads.
- Workers shall not ride on loads or hoisting hooks.

Forklifts shall be operated with:

- The mast tilted back to steady and secure the load
- The load on the uphill end when ascending or descending grades greater than 10%.
- The forks in the down hill position when traveling unloaded on all grades.
- The load not raised or lowered during travel except for minor adjustment.
- Only the operator shall be on a forklift when it is operating.
- The operator shall wear the seatbelt when operating a forklift.
- Forklifts will have a functioning back-up alarm.

Materials shall not be dropped from an elevation until the drop area is cleared and guarded or barricaded.

There are several hazardous substances used and produced in the plant that could cause serious injury or loss of life if not handled correctly. The Plant Safety Department has a complete set of Material Safety Data (MSDS) sheets for these substances. These sheets explain First Aid procedures and proper use of protective equipment when handling these chemicals. The MSDS sheets are located in the Administration Building foyer. Your CMR or Plant Safety personnel can explain the use of MSDS sheets and help you locate them.

III. OFF-SITE PROPERTIES

There are several hazardous substances used and produced in the plant that could cause serious injury or loss of life if not handled correctly. The Plant Safety Department has a complete set of Material Safety Data (MSDS) Sheets for these substances. These sheets explain First Aid procedures and proper use of protective equipment when handling these chemicals. Your CMR or Plant safety personnel can explain the use of MSDS sheets and help you locate them.

1. In the event of an emergency the radio in Monsanto Vehicles should be capable of reaching the guard at the Monsanto Elemental phosphorus plant. Explain to them the type and severity of the emergency, your location and how to communicate in the future, if necessary.

2. For exploration related projects, there will be a portable phone that will be kept in the geologist truck or the water truck that can be used as a regular phone from limited locations throughout the area.

3. Emergency contact numbers are to be kept in geologist and contractor's water truck:

    a. Emergency: phone 911, radio guard at Monsanto Elemental Phosphorus plant (channel 1).
    b. Sheriff: (208) 547-2561

c. David Carpenter: (208) 574-6130 wk, (208) 776-5269 hm, Blackfoot Bridge Related Projects-Randy Vranes (208) 574-6129 wk, (208) 547-4843 hm, or Dave Farnsworth (208) 547-1241wk, (208) 547-4804 hm.
d. Degerstrom: (208) 574-6011 (Mon through Thurs 7AM to 5PM)

4. In an extreme emergency it may be possible to land Life Flight at Ballard or other LZ as may be designed.

5. Contractors, consultants, government employees must notify a Monsanto representative prior to accessing Monsanto property. Monsanto employees need to notify a co-worker that they will be traveling to or working at any of Monsanto's non-operating properties and provide an estimated return time.

6.0 Contractor/Guest ES&H Site Guidelines

6.6.5 ASBESTOS ABATEMENT

Asbestos: There is Asbestos Containing Materials (ACM) at the plant. Identified ACM has been labeled. There maybe ACM that has not been identified and labeled. Asbestos can be in floor tile, pipe, mechanical insulation, plaster, fireproofing, roofing materials, brake pads, and gaskets. Undisturbed it is perfectly safe. Asbestos has microscopic fibers which, when released enters the air. Once in the air it can enter the lungs causing a disease. Never work on or touch any material that has been labeled or is suspected as being asbestos without the proper training. Stop your work and contact your assigned CMR or a member of the plant Safety and Health team immediately.

The Monsanto Soda Springs Plant contains Asbestos Containing Materials (ACMs). Identified ACMs have been affixed with hazard warning labels to notify employees of the health hazards associated with asbestos exposure. There may be ACMs in the Plant, which have not been identified and labeled. During the course of your work assume that insulation, surface and roofing materials, gaskets, wallboard and floor tiles may contain asbestos especially if constructed prior to 1980. Only approved laboratory test are valid for confirming or denying the presence of ACM. Contact ESH with any questions. Asbestos Containing Material has been identified and labeled in the following areas:

*Scale Room *Laboratory *Furnace Buildings
*Raw Ore Building *Training Building *Boiler Building

I have read and understand this asbestos notification form.
Name:_____Date:_____
Company:_____

6.0 Contractor/Guest ES&H Site Guidelines

6.6.7 LEAD EXPOSURE

- Prior to any dismantling or demolition you must contact your CMR who will set up a hazard assessment for possible lead presence.
- Do not torch, cut, weld, or grind on paint or galvanized material until you have had a hazard assessment.
- Employees will be trained if they are to work in an area with lead prior to starting the work.

6.0 Contractor/Guest ES&H Site Guidelines

6.6.8 RADIATION SAFETY

1. All work to be conducted on or around fixed and portable nuclear regulated material must be conducted under the full knowledge of the plant Radiation Safety Officer (RSO). Notify the CMR they will work with you to inform the RSO. Only properly licensed individuals may conduct such work in the plant.

2. All work conducted in the vicinity of nuclear sources at the plant may require lock out of the source material. Each operating unit with such sources will have lock out plans established. Only designated Monsanto personnel are authorized to secure such sources.

3. All nuclear regulated material will have the proper warning signs and labels affixed. It is the responsibility of each contractor to be aware of these signs and understand the safe practices when working around nuclear material.

4. Damage or incidents involving nuclear material and their holders must be reported immediately through the CMR to the plant RSO.

Radiography

1. All contractors will use extreme caution and safety measures to ensure no employees are exposed to unnecessary radiation. The following guidelines have been established to provide employees working near radiography:

   a. Radiographers must properly barricade for radiation.

   b. Before using radiography your CMR will notify the Site RSO.

6.7.1 CRANES AND HOISTING EQUIPMENT

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

Crane and Picker Requirements:

1. When lifting material with a crane:
    a. Know the appropriate hand signals
    b. Make sure load is secured
    c. Never stand under the suspended load
    d. Only one person should give the hand signals
    e. Signal man must always be in plain view of the operator
    f. Always follow the load chart
    g. Lifts over 5 tons require a Critical Lift Plan
2. Only qualified personnel are allowed to operate cranes or pickers.
3. No crane or picker will be left unattended with a suspended load.
4. A tag line shall be used when swinging, lifting or transporting a load with a picker or crane.
5. Avoid suspending loads for extended periods of time. Either land the load or tie it off.
6. Never ride on a load or allow others to do so.
7. A Critical work plan must be filled out and used for:
    a. All lifts exceeding 5 tons.
    b. When lifting over process lines (i.e. steam, phossy water)

Safety note: Ensure electrical lines are evaluated for proper clearance requirements.

MONSANTO

Crane Lift Plan

This work instruction checklist is required for all lifts exceeding (5)tons.

Location Date of lift

Load Description

Lift Description

A. **Weight:**

1. Equipment Condition New ☐ Used ☐
2. Weight empty _____lbs
3. Weight of headache ball _____lbs
4. Weight of block _____lbs
5. Weight of lifting bar _____lbs
6. Weight of slings and shackles _____lbs
7. Weight of jib _____lbs
8. Weight of headache ball on jib _____lbs
9. Weight of cable (load fall) _____lbs
10. Allowance for unaccounted material in equipment _____lbs
11. OTHER_____ _____lbs

TOTAL WEIGHT _____lbs

Source of Load Weight

_____

name plate, drawings, calculated, etc.

Weights verified by: (name)

_____

B. **Jib:**

Erect_____ Stored_____

1. Is the jib to be used? _____
2. Length of jib_____
3. Angle of jib_____
4. Rated capacity of jib_____

C. **Crane Placement:**

1. Any deviation from a smooth solid foundation in the area?

_____

_____

2. Electrical hazards in the area? _____

_____

3. Obstacles or obstructions to lift or swing?_____

_____

_____

4. Swing direction and degree (boom swing)_____

_____

D. **Cable:**

1. Number of parts of cable_____
2. Size of cable _____

Crane inspected by:_____

Functional test of crane by:_____

Designated Groundman:_____

Wind conditions at time of lift:_____

E. **Sizing of slings**

1. Sling selection
   - a. Type of arrangement _____
   - b. Number of slings in hookup _____
   - c. Sling length _____
   - d. Rated capacity of sling _____
2. Shackle selection
   - a. Capacity _____
   - b. Shackle attached to load by: (name) _____
   - c. Number of shackles _____

F. **Crane**

1. Type of crane _____
2. Crane capacity _____
3. Lifting arrangement
   - a. Max. distance - Center of load to center pin of crane
   - b. Length of boom _____
   - c. Angle of boom at pickup _____degrees
   - d. Angle of boom at set _____degrees
   - e. Rated capacity of crane under most severe lifting conditions (from chart)
     1. Over rear _____lbs
     2. Over front _____lbs
     3. Over side _____lbs
     4. From chart - rated capacity of crane for this lift _____lbs
     5. Maximum load on crane _____lbs
     6. Lift is what percentage of crane's rated capacity _____%

G. **Pre-lift Checklist**

1. Matting acceptable	Yes	No
2. Outriggers fully extended	Yes	No
3. Crane in good condition	Yes	No
4. Swing Room	Yes	No
5. Head room check	Yes	No
6. Maximum counterweights used	Yes	No
7. Tag line used	Yes	No
8. Experienced operator	Yes	No
9. Experienced groundman	Yes	No
10. Experienced rigger	Yes	No
11. Radios used	Yes	No
12. Anti-two block device used	Yes	No

Note: If radios are used they must be dedicated crane radios.

Special instructions or restrictions for crane, rigging, lift etc.

Diagram crane an load placement	Diagram rigging configuration

Multiple crane lifts require a separate lift plan for each crane.

Any change in the configuration of the, placement, rigging, lifting scheme, etc. or changes in any calculations require that a new lift plan be developed.

When lifting personnel with a crane obtain the Hazardous work permit titled: Lifting Personnel with Cranes

Signatures:

Project Leader / Planner _____

Crane Operator _____

II. QUARRY

Refer to Mine

III. OFF-SITE PROPERTIES

Crane and Picker Requirements:

1. When lifting material with a crane:
    a. Know the appropriate hand signals
    b. Make sure load is secured
    c. Never stand under the suspended load
    d. Only one person should give the hand signals
    e. Signal man must always be in plain view of the operator
    f. Always follow the load chart

g. Lifts over 5 tons require a Critical Lift Plan

2. Only qualified personnel are allowed to operate cranes or pickers.

3. No crane or picker will be left unattended with a suspended load.

4. A tag line shall be used when swinging, lifting or transporting a load with a picker or crane.

5. Avoid suspending loads for extended periods of time. Either land the load or tie it off.

6. Never ride on a load or allow others to do so.

7. A Critical work plan must be filled out and used for:
   a. All lifts exceeding 5 tons.
   b. When lifting over process lines (i.e. steam, phossy water)

Safety note: Ensure electrical lines are evaluated for proper clearance requirements.

MONSANTO

Crane Lift Plan

This work instruction checklist is required for all lifts exceeding (5)tons.

Location Date of lift

Load Description _____

Lift Description _____

A. **Weight:**

1. Equipment Condition New ☐ Used ☐
2. Weight empty _____lbs
3. Weight of headache ball _____lbs
4. Weight of block _____lbs
5. Weight of lifting bar _____lbs
6. Weight of slings and shackles _____lbs
7. Weight of jib _____lbs
8. Weight of headache ball on jib _____lbs
9. Weight of cable (load fall) _____lbs
10. Allowance for unaccounted material in equipment _____lbs
11. OTHER_____ _____lbs

TOTAL WEIGHT _____lbs

Source of Load Weight

_____

name plate, drawings, calculated, etc.

Weights verified by: (name)

_____

B. **Jib:**

Erect_____ Stored_____

1. Is the jib to be used? _____
2. Length of jib_____
3. Angle of jib_____
4. Rated capacity of jib_____

C. **Crane Placement:**

1. Any deviation from a smooth solid foundation in the area?

_____

_____

2. Electrical hazards in the area? _____

_____

3. Obstacles or obstructions to lift or swing?_____

_____

_____

4. Swing direction and degree (boom swing)_____

_____

D. **Cable:**

1. Number of parts of cable_____
2. Size of cable _____

Crane inspected by:_____

Functional test of crane by:_____

Designated Groundman:_____

Wind conditions at time of lift:_____

E. **Sizing of slings**

1. Sling selection
   - a. Type of arrangement _____
   - b. Number of slings in hookup _____
   - c. Sling length _____
   - d. Rated capacity of sling _____
2. Shackle selection
   - a. Capacity _____
   - b. Shackle attached to load by: (name) _____
   - c. Number of shackles _____

F. **Crane**

1. Type of crane _____
2. Crane capacity _____
3. Lifting arrangement
   - a. Max. distance - Center of load to center pin of crane
   - b. Length of boom _____
   - c. Angle of boom at pickup _____degrees
   - d. Angle of boom at set _____degrees
   - e. Rated capacity of crane under most severe lifting conditions (from chart)
     1. Over rear _____lbs
     2. Over front _____lbs
     3. Over side _____lbs

4. From chart - rated capacity of crane for this lift _____lbs

5. Maximum load on crane _____lbs

6. Lift is what percentage of crane's rated capacity _____%

G. **Pre-lift Checklist**

1. Matting acceptable	Yes	No
2. Outriggers fully extended	Yes	No
3. Crane in good condition	Yes	No
4. Swing Room	Yes	No
5. Head room check	Yes	No
6. Maximum counterweights used	Yes	No
7. Tag line used	Yes	No
8. Experienced operator	Yes	No
9. Experienced groundman	Yes	No
10. Experienced rigger	Yes	No
11. Radios used	Yes	No
12. Anti-two block device used	Yes	No

Note: If radios are used they must be dedicated crane radios.

Special instructions or restrictions for crane, rigging, lift etc.

Diagram crane an load placement	Diagram rigging configuration

Multiple crane lifts require a separate lift plan for each crane.

Any change in the configuration of the, placement, rigging, lifting scheme, etc. or changes in any calculations require that a new lift plan be developed.

When lifting personnel with a crane obtain the Hazardous work permit titled: Lifting Personnel with Cranes

Signatures:

Project Leader / Planner _____

Crane Operator _____

Overhead Work

a. Use of appropriate lanyard and safety harness for the job.

b. Tools, parts and other work materials are to be hoisted up, to the person performing the overhead work, in a bucket or basket suitable for the job.

c. Clear and a barricade the area immediately below and adjacent to the work area sufficient to reduce the risk to those assisting or observing from the ground. Never work underneath suspended load.

d. A JSA is to be completed prior to commencing work.

e. Such work is not to be conducted during severe weather e.g. electrical storms.

6.7.3 MOBILE/POWERED CONTRUCTION EQUIPMENT

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

VEHICLE SAFETY/TRAFFIC:

1. Any Vehicle that enters the plant must stop at the guard station and get a vehicle pass, which states the business and destination of that vehicle.

2. All vehicles entering plant gates will be inspected by the Vehicle Equipment Checklist.

3. Vehicles shall be escorted into the plant and to their destination by the responsible department.

4. The speed limit within the plant is 15 MPH unless otherwise posted.

5. Headlights or a strobe must be turned on when vehicles are traveling in the plant.

6. All persons will keep a safe distance from moving heavy equipment until the attention of equipment operator has been gained and eye contact made.

7. Vehicles entering the plant shall observe all railroad signs and must cross tracks only at regular crossings.

8. No person is to ride on any vehicle except as a passenger inside the cab. Seat belts are required.

9. Nonsmoking signs are posted and shall be observed at all times. Smoking is not permitted within 20 feet of gasoline and diesel fuel pumps.

10. Mobile equipment engines must be shut off prior to fueling.

11. Haulage units always have the right of way on all roads; this includes the quartzite road.

12. The speed limit on haul roads is 35 MPH.

13. Use of cell phones while driving a vehicle on the Mine property is prohibited.

CONTRACTOR VEHICLE/TOOL INSPECTION CHECKLIST

Date Inspected: _____

Driver Name: _____

Company: _____

License Number: _____

Inspected By: _____

CHECK LIST	NA	OK	DEFAULTS
General Condition & Housekeeping			
Tires			
Brakes			
Parking Brakes			
Glass			
Doors			
Rear View Mirrors			
Head Lights			
Warning Flashers			
Tail Lights			
Horn			
Back-Up Alarm (if view through rear window is obstructed)			
Fire Extinguisher			
Exhaust System			
Seat Belts for all employees			
Strobe Lights Required (if not equipped w/ head lights)			
EQUIPMENT/TOOLS			
Ladders			
Hoisting equipment			
Hand Tools			
Fuel Containers Safety Can w/ spring loaded lid & flame arrest			
Hoses			
Other Equipment Applicable			

FORKLIFT AND BOBCAT:

1. Only qualified operators who have successfully completed the forklift-training course are permitted to operate a forklift.

2. Only qualified personnel are permitted to operate a Bobcat.

II. QUARRY

VEHICLE SAFETY/TRAFFIC:

1. Any Vehicle that enters the plant must stop at the guard station and get a vehicle pass, which states the business and destination of that vehicle.

2. All vehicles entering plant gates will be inspected by the Vehicle Equipment Checklist.

3. Vehicles shall be escorted into the plant and to their destination by the responsible department.

4. The speed limit within the plant is 15 MPH unless otherwise posted.

5. Headlights or a strobe must be turned on when vehicles are traveling in the plant.

6. All persons will keep a safe distance from moving heavy equipment until the attention of equipment operator has been gained and eye contact made.

7. Vehicles entering the plant shall observe all railroad signs and must cross tracks only at regular crossings.

8. No person is to ride on any vehicle except as a passenger inside the cab. Seat belts are required.

9. Nonsmoking signs are posted and shall be observed at all times. Smoking is not permitted within 20 feet of gasoline and diesel fuel pumps.

10. Mobile equipment engines must be shut off prior to fueling.

11. Haulage units always have the right of way on all roads; this includes the quartzite road.

12. The speed limit on haul roads is 35 MPH.

13. Use of cell phones while driving a vehicle in the plant is prohibited.

CONTRACTOR VEHICLE/TOOL INSPECTION CHECKLIST

Date Inspected: _____

Driver Name: _____

Company: _____

License Number: _____

Inspected By: _____

CHECK LIST	NA	OK	DEFAULTS
General Condition & Housekeeping			
Tires			
Brakes			
Parking Brakes			
Glass			
Doors			
Rear View Mirrors			
Head Lights			
Warning Flashers			
Tail Lights			
Horn			
Back-Up Alarm (if view through rear window is obstructed)			
Fire Extinguisher			
Exhaust System			
Seat Belts for all employees			
Strobe Lights Required (if not equipped w/ head lights)			
EQUIPMENT/TOOLS			
Ladders			
Hoisting equipment			
Hand Tools			
Fuel Containers Safety Can w/ spring loaded lid & flame arrest			
Hoses			
Other Equipment Applicable			

FORKLIFT AND BOBCAT:

1. Only qualified operators who have successfully completed the forklift-training course are permitted to operate a forklift.

2. Only qualified personnel are permitted to operate a Bobcat.

Mobile Equipment

Whenever approaching an area where mobile equipment may be working extra caution must be used. The operators have limited visibility, the larger equipment has a much

greater turning radius, and in most cases the stopping distance is greater. For these simple reasons – **"Before approaching any piece of mobile equipment, make absolutely certain that the operator sees you"**. Get the operator's attention and inform him of your presence and your intentions before approaching. This goes for all mobile equipment – just because a piece of equipment is small does not mean it is any less dangerous to work around. All mobile equipment is built and designed for power, that power goes where the operator directs it. Getting in the path of mobile equipment could be a fatal mistake.

Loading, Dumping, & Hauling

The following definitions apply to loading, dumping, & hauling:

Berm – A pile or mound of material along an elevated roadway capable of moderating or limiting the force of a vehicle in order to impede the vehicle's passage over the bank or the haul road.

Berms shall be provided and maintained on banks or haul roads, where a drop-off exists of sufficient grade or depth to cause a vehicle to overturn or endanger persons in equipment. These berms shall be at least mid-axle height of the largest piece of mobile equipment that travels the haul road. Openings may be provided in the berms to allow drainage of the haul road. Berms or similar impeding devices shall be in place at dumps where there is a hazard of over-travel or overturning.

Mobile Equipment – Wheeled, skid-mounted, or track-mounted, equipment capable of moving or being moved.

Traffic control is provided for the safe movement of mobile equipment by:

- Rules governing speed, right-of-way and direction of movement.
- The use of headlights to assure appropriated visibility
- Signs or signals that worn of hazardous conditions.

Operators of mobile equipment shall maintain control of the equipment while it is motion. Operating speeds shall be consistent with conditions of haul roads, grades, visibility, traffic, and the type of equipment being operated. Persons shall not be transported in/on the forks, buckets, beds or outside the cab of any mobile equipment. Persons shall not be transported in over-crowded mobile equipment (i.e. crowded cabs or vans). Every passenger must be provided with and wear a seatbelt.

Loading, hauling, and dumping will be done in a manner such that hazards to persons from falling or shifting material are not created. Mobile equipment used for haulage of mined material shall be loaded to minimize spillage that may create a hazard to persons or other mobile equipment & vehicles. This hazard could include persons in passing vehicles or other mobile equipment. To prevent additional hazards such as tipping or vehicle instability, large boulders should be broken to an appropriate size before loading. If a large boulder must be loaded, care should be taken to properly place and center the load. Shovels/Loader operators should maintain communication

with haul truck drivers at all times. Shovel/Loader operators should make sure that unbalanced loads are stopped and dumped in the shovel area and re-loaded if necessary to avoid any possible injury or equipment damage.

Water, debris, or spilled material on haul roads, which creates hazards to the safe operation of mobile equipment, shall be removed.

The face of all stockpiles or muck piles shall be trimmed of overhangs and hanging material (to angle of repose) to minimize pile instability and the hazard of falling material.

III. OFF-SITE PROPERTIES

Refer to Mine

6.8.0 WASTE MANAGEMENT

(This document has 3 parts I Mine, II Quarry, III Off-Site Properties)

I. MINE

Compliance with environmental laws and regulations is a condition of doing business with Monsanto. All questions regarding environmental requirements should be directed to the CMR who will then contact the Environmental Group.

There are two major environmental areas that all contractors entering the plant need to be aware of:

1. Chemical use/disposal

   All chemicals to be used on Monsanto property shall be approved through the Environmental Department before being brought on site. The CMR is responsible for making sure that the contractor provides a list of chemicals that will be used during the project, along with a MSDS for each chemical. This information will be provided to the Environmental Group for their review. A wide variety of chemicals used during cleaning, painting, degreasing and other operations become RCRA hazardous wastes when they are used or spent. These chemicals may include: solvents, acids, soldering, brazing, fluxing, welding, scraping waste and sandblasting waste. Any questions regarding a chemical's regulatory status, including proper storage and disposal, should be directed to the CMR. It is the CMR's responsibility to ensure that all used/unused chemicals are handled, recycled or disposed of properly. Leftover chemicals brought on site shall be removed by the contractor from the site for the purpose of recycling, disposal or returning to the manufacturer.

2. Releases of Chemicals to the Environment

   It is the responsibility of the CMR and the contractor to know the reportable quantities for all chemicals being used on each respective project. A reportable quantity is the amount of a substance which, when released to the environment, triggers state or federal reporting requirements. The CMR will receive this information from the Environmental Group during the initial chemical approval (prior to bringing the chemical on site). If a release of a reportable quantity of a chemical

occurs, the contractor should IMMEDIATELY report the release to federal, state and local regulatory authorities and then inform your assigned CMR or the Environmental Group. If the contractor is unfamiliar with release reporting requirements, the CMR will provide assistance with the calls. If your CMR is not available, contact a plant crew supervisor or Lead OME.

Work Instructions for Bringing Chemical Products into the Plant

1. Check the Evaluated Chemicals List found in the Plant ESH Folder for your product. Is the chemical on the list?

2. If it is on the list and has been approved, notify purchasing that the chemical has already been approved and continue with your order. Note any safety and/or environmental concerns, which may affect how you utilize the chemical. Reminder: Only order the amount of product needed for the project. Also, ensure that unused product can be sent back to the vendor immediately after a project is finished to eliminate the need toe dispose of a once useful product as waste.

3. If it is on the list but has not been approved, find an alternative product and return to step 1.

4. If the product is not on the list, fill out box 1 of the chemical evaluation form found in the plant ESH Folder and attach a copy of the MSDS (this can be obtained from the vendor). Give the form and the MSDS to the IH Specialist or an environmental engineer.

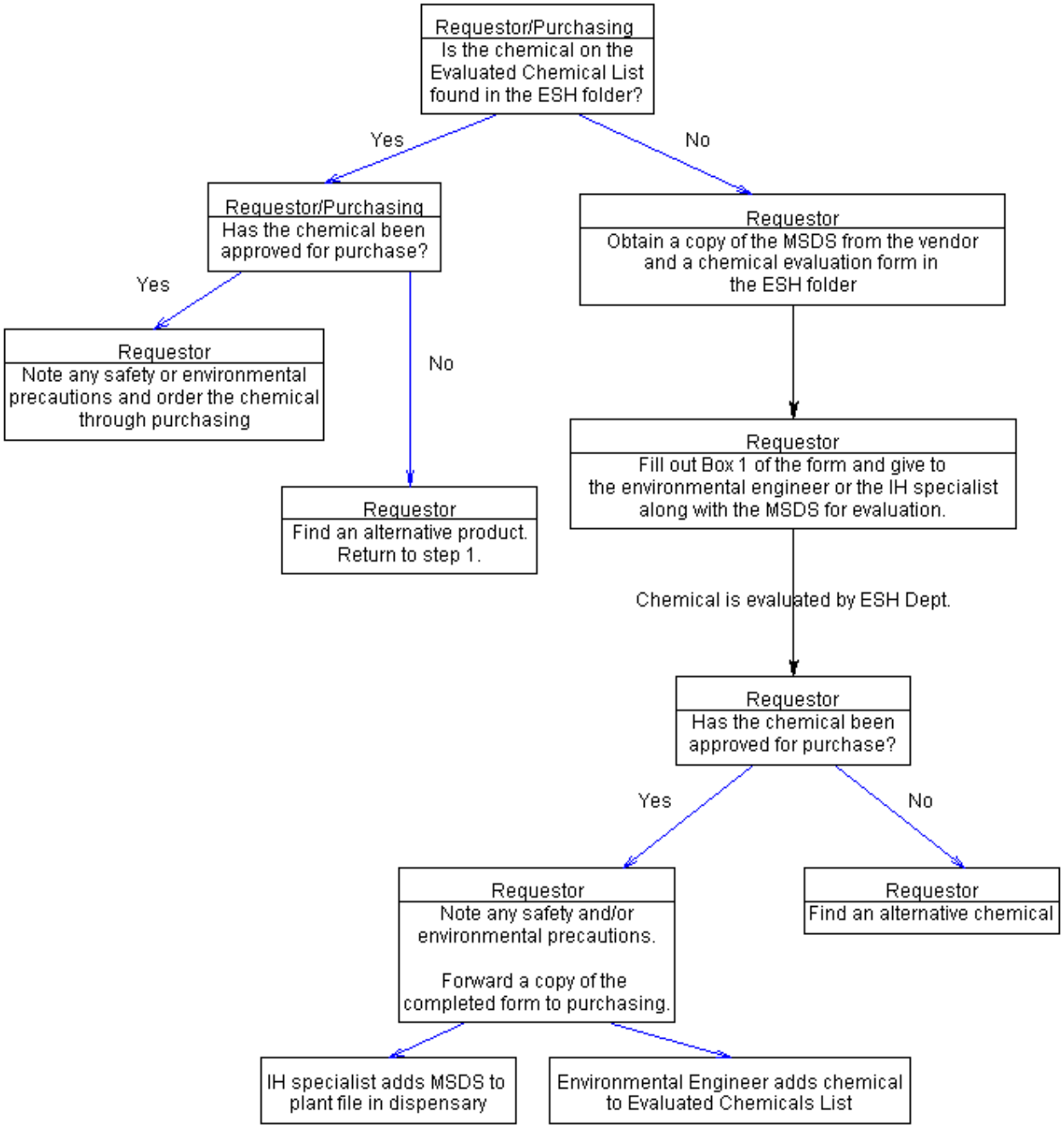
5. When the completed form is returned to you, has the product been approved for purchase?

6. If yes, note any safety and/or environmental concerns, which may affect how you utilize the product, and forward a copy of the completed evaluation to purchasing. Purchasing will not order any chemical product unless they receive a “Chemical Ordering Evaluation Form” for the product to be ordered.

7. The IH Specialist will add the MSDS to the plant files located in the administration-building foyer. The environmental engineer will also add the chemical to the Evaluated Chemicals List.

8. If no, find an alternative product and return to step 1.

Work Instructions for Bringing Chemical Products into the Plant



CHEMICAL ORDERING EVALUATION FORM

BOX 1: TO BE COMPLETED BY REQUISITIONER

Date _____ Requested By: _____ Department: _____
PRODUCT NAME:_____ Manufacturer: _____Phone #: _____
Area of Use: _____ Used for: _____
Type of Requisition: [ ] One time use* [ ] Permanent Order: Amt/year: _____
*Has the vendor agreed to take back any unopened containers? [ ] yes [ ] no
If no, why? _____
Vendor's Name & Phone Number _____
REQUISITION #: _____ Additional Information: _____
_____

****ATTACH AN MSDS PRIOR TO SENDING TO ENVIRONMENTAL & SAFETY FOR REVIEW****

BOX 2: HEALTH & SAFETY (IH Specialist)

[ ] NFPA [ ] Not Applicable

Health	0	1	2	3	4
Fire	0	1	2	3	4
Reactivity	0	1	2	3	4

[ ] Hazard Communication [ ] Not Applicable
Chemical Name: _____ CAS Number: _____
Carcinogen [ ] Known [ ] Suspected [ ] Not Applicable
TLV's [ ] TWA _____ppm or mg/m^3 [ ] STEL_____ppm or mg/m^3
[ ] Not Applicable

RECOMMENDATIONS:
[ ] O.K. for purchase[ ] Purchase Only as needed [ ] Do Not Purchase
Comments: _____
Reviewed By: _____ Date: _____

HEALTH AND SAFETY PRECAUTIONS

_____
_____
_____

BOX 3: ENVIRONMENTAL (Environmental Engineer)

[ ] RCRA [ ] Not Applicable Characteristic Hazardous Waste:
Ignitable _____ Corrosive ____ Reactive ____ Toxic _____
Listed Hazardous Waste: F listed _____ K listed _____ U listed _____
P listed _____

[ ] CERCLA [ ] Not Applicable
Hazardous Substance: _____ Reportable Quantity: _____
Hazardous Substance: _____ Reportable Quantity: _____

[ ] EPCRA [ ] Not Applicable [ ] Hazardous Chemical [ ] Extremely Hazardous Substance
Threshold Planning Quantity: _____

RECOMMENDATIONS:
[ ] O.K. for purchase [ ] Purchase Only as needed [ ] Do Not Purchase
Comments: _____
_____
Reviewed By: _____ Date: _____

ENVIRONMENTAL PRECAUTIONS & RESTRICTIONS

_____
_____
_____

II. QUARRY

Refer to Mine

III. OFF-SITE PROPERTIES

Compliance with environmental laws and regulations is a condition of doing business with Monsanto. All questions regarding environmental requirements should be directed to the CMR who will then contact the Environmental Group.

There are two major environmental areas that all contractors entering the plant need to be aware of:

1. Chemical use/disposal

    a. All chemicals to be used on Monsanto property shall be approved through the Environmental Department before being brought on site. The CMR is responsible for making sure that the contractor provides a list of chemicals that will be used during the project, along with a MSDS for each chemical. This information will be provided to the Environmental Group for their review. A wide variety of chemicals

used during cleaning, painting, degreasing and other operations become RCRA hazardous wastes when they are used or spent. These chemicals may include: solvents, acids, soldering, brazing, fluxing, welding, scraping waste and sandblasting waste. Any questions regarding a chemical's regulatory status, including proper storage and disposal, should be directed to the CMR. It is the CMR's responsibility to ensure that all used/unused chemicals are handled, recycled or disposed of properly. Leftover chemicals brought on site shall be removed by the contractor from the site for the purpose of recycling, disposal or returning to the manufacturer.

b. Identify, treat, store and handle waste consistent with EPA and State Regulations. Absorbent pads, containment berms or waddles and tarps to cover material, are to be maid available and used when these types of materials are to be temporarily handled or stored.

c. A portable toilet will be made available at the work site while exploration activities are occurring.

d. Waste i.e. waste oil, garbage and other debris generated on site are to be properly disposed of at the end of each shift.

2. Releases of Chemicals to the Environment

It is the responsibility of the CMR and the contractor to know the reportable quantities for all chemicals being used on each respective project. A reportable quantity is the amount of a substance which, when released to the environment, triggers state or federal reporting requirements. The CMR will receive this information from the Environmental Group during the initial chemical approval (prior to bringing the chemical on site). If a release of a reportable quantity of a chemical occurs, the contractor should IMMEDIATELY report the release to federal, state and local regulatory authorities and then inform your assigned CMR or the Environmental Group. If the contractor is unfamiliar with release reporting requirements, the CMR will provide assistance with the calls. If your CMR is not available, contact a plant crew supervisor or Lead OME.

<u>Work Instructions for Bringing Chemical Products into the Plant</u>

1. Check the Evaluated Chemicals List found in the Plant ESH Folder for your product. Is the chemical on the list?

2. If it is on the list and has been approved, notify purchasing that the chemical has already been approved and continue with your order. Note any safety and/or environmental concerns, which may affect how you utilize the chemical. Reminder: Only order the amount of product needed for the project. Also, ensure that unused product can be sent back to the vendor immediately after a project is finished to eliminate the need toe dispose of a once useful product as waste.

3. If it is on the list but has not been approved, find an alternative product and return to step 1.

4. If the product is not on the list, fill out box 1 of the chemical evaluation form found in the plant ESH Folder and attach a copy of the MSDS (this can be obtained from the vendor). Give the form and the MSDS to the IH Specialist or an environmental engineer.

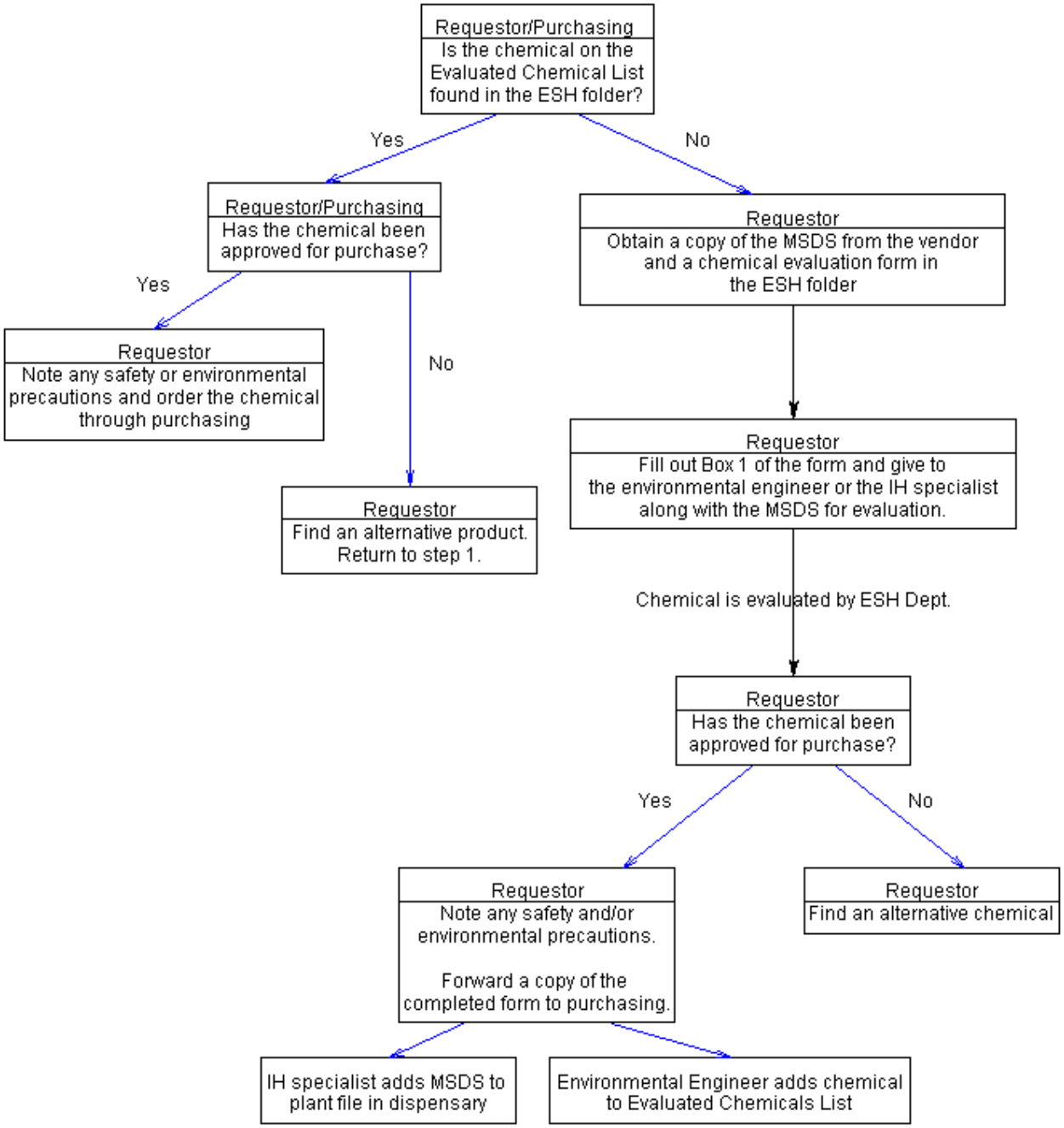
5. When the completed form is returned to you, has the product been approved for purchase?

6. If yes, note any safety and/or environmental concerns, which may affect how you utilize the product, and forward a copy of the completed evaluation to purchasing. Purchasing will not order any chemical product unless they receive a “Chemical Ordering Evaluation Form” for the product to be ordered.

7. The IH Specialist will add the MSDS to the plant files located in the administration-building foyer. The environmental engineer will also add the chemical to the Evaluated Chemicals List.

8. If no, find an alternative product and return to step 1.

Work Instructions for Bringing Chemical Products into the Plant



CHEMICAL ORDERING EVALUATION FORM

BOX 1: TO BE COMPLETED BY REQUISITIONER

Date _____ Requested By: _____ Department: _____

PRODUCT NAME:_____ Manufacturer: _____Phone #: _____
Area of Use: _____ Used for: _____
Type of Requisition: [ ] One time use* [ ] Permanent Order: Amt/year: _____
*Has the vendor agreed to take back any unopened containers? [ ] yes [ ] no
If no, why? _____
Vendor's Name & Phone Number _____
REQUISITION #: _____ Additional Information: _____
_____

****ATTACH AN MSDS PRIOR TO SENDING TO ENVIRONMENTAL & SAFETY FOR REVIEW****

BOX 2: HEALTH & SAFETY (IH Specialist)

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Health	0	1	2	3	4
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Chemical Name: _____ CAS Number: _____
Carcinogen [ ] Known [ ] Suspected [ ] Not Applicable
TLV's [ ] TWA _____ppm or mg/m^3 [ ] STEL_____ppm or mg/m^3
[ ] Not Applicable

RECOMMENDATIONS:
[ ] O.K. for purchase[ ] Purchase Only as needed [ ] Do Not Purchase
Comments: _____
Reviewed By: _____ Date: _____

HEALTH AND SAFETY PRECAUTIONS

_____
_____
_____

BOX 3: ENVIRONMENTAL (Environmental Engineer)

[ ] RCRA [ ] Not Applicable Characteristic Hazardous Waste:
Ignitable _____ Corrosive ____ Reactive ____ Toxic _____
Listed Hazardous Waste: F listed _____ K listed _____ U listed _____
P listed _____

[ ] CERCLA [ ] Not Applicable
Hazardous Substance: _____ Reportable Quantity: _____
Hazardous Substance: _____ Reportable Quantity: _____

[ ] EPCRA [ ] Not Applicable [ ] Hazardous Chemical [ ] Extremely Hazardous Substance
Threshold Planning Quantity: _____

RECOMMENDATIONS:
[ ] O.K. for purchase [ ] Purchase Only as needed [ ] Do Not Purchase
Comments: _____
_____
Reviewed By: _____ Date: _____

ENVIRONMENTAL PRECAUTIONS & RESTRICTIONS

_____
_____
_____

6.0 Contractor/Guest ES&H Site Guidelines

6.9.1 SUBSTANCE DETECTION

General Requirements:

For the general requirements to Low-Risk and High-Risk contractors refer to 5.0 Contractor/Guest ES&H Guidelines, 5.9.1 Substance Detection.

This policy is in effect for all Monsanto Soda Springs locations including the Rock Springs, Wyoming Calciner facility, and all affiliated off site mining operations and properties (hereinafter referred to as Soda Springs Facilities).

Contractors that do not have substance abuse policy consistent with these guidelines will not be allowed on a Soda Springs facility without a Monsanto management exception.

All contractors have been classified into one of two categories, High-Risk or Low-Risk. This classification was determined as to the type of work that the contractor performs at the Soda Springs Facilities.

Requirements for Both Low-Risk and High-Risk Contractors:

Low-Risk and High-Risk contractors must maintain a copy of an executed **Substance Abuse Policy Statements (Exhibit A)** for each contract employee who works at a Soda Springs Facility; and

Low-Risk and High-Risk contractors must present at the time of site orientation an executed **Substance Abuse Policy Statement (Exhibit A)** for each contract employee undergoing site orientation.

If the Certified Monsanto Representative (CMR) suspects any contract employee is impaired due to alcohol, drugs or other substances, the contract employee will be asked to and will be required to immediately leave the Soda Springs Facility and not return until that contract employee has undergone a substance abuse test verifying that he or she is in fact substance free.

Additional Requirements for High-Risk Contractors:

A. Testing Program: All High-Risk contractors must implement one of the two following substance abuse testing programs, although please note that Monsanto prefers that its High-Risk contractors implement the first option:

Option One: Contractor must execute and provide to Monsanto the **Contractor Employer Substance Abuse Verification (Exhibit B)** and must implement a substance-abuse testing program that contains the following elements:

1. Prior to Working At Soda Springs Facilities – Contractor must have a program that documents that each contract employee working at a Soda Springs facility has passed a substance-abuse test prior to that individual starting work at any Soda Springs Facility.

2. Random Testing – Contractor must have a documented program providing evidence that at least 35 percent of its work force who have worked at Soda Springs Facilities has been randomly tested during the prior year. The testing of the 35 percent must occur evenly over an annual time frame. Testing all personnel on a single day does not qualify as random.

Option Two: Within 15 days prior to any contract employee beginning work at the Soda Springs Facilities and within six months of any previous test, Contractor must test that individual, maintain executed **Contractor Employee Substance Abuse Verification(s) Employee Substance Abuse Verification (Exhibit C)** for that test(s), and provide to Monsanto the executed **Contractor Employer Substance Abuse Verification (Exhibit B)** at the time of that individual's site orientation. This testing requirement applies for as long as the contract employee continues to work at the Soda Springs Facilities. If there is a 45-day lapse in any assignment to the Soda Springs Facilities for any particular contract employee, contractor must test that individual within 15 days prior to him or her restarting work at the Soda Springs Facilities.

B. Test Requirements: The substance abuse testing conducted pursuant to the above guidelines must be for the following listed substances (or other such substances as indicated in writing by Monsanto) at levels set forth in the Federal Register of Health and Human Services Guidelines published in the Federal Register on April 11, 1988 [53 F.R. 11970], and any amends thereto.

Amphetamines
Cannabinoids (THC)
Cocaine Metabolite
Opiates
Phencyclidines

All tests shall be performed in a Substance Abuse and Mental Health Services Administration (SAMHSA) certified laboratory.

C. Positive Results: If a contract employee tests positive for substance impairment or contractor suspects a contract employee of substance impairment, contractors shall:

1. Immediately remove the contract employee from the Soda Springs Facilities.
2. Inform the CMR Leader and Purchasing Lead.

A contract employee who has tested positive for substance impairment shall not be allowed to return to the Soda Springs Facilities until the CMR Leader or Purchasing Lead has been provided verification and documentation that the contract employee has successfully completed a recognized substance abuse rehabilitation program.

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EXHIBIT A

SUBSTANCE ABUSE POLICY STATMENT

Employee Name: _____

Contractor Name: _____ ("Company")

In connection with your employment, you may be assigned to work on the premises of Company's client, Monsanto Company ("Monsanto").

The use, possession, sale and distribution of alcohol or controlled, illegal or unauthorized substances, or the presence of an individual testing positive under Company's drug testing programs for such substances for non-medical reasons, are prohibited on any Monsanto work location, including project sites. Illegal drugs include, among others, marijuana, hashish, heroin, crack/cocaine and hallucinogens.

Entry to any Monsanto work location, including project sites, offices and vehicles, is conditional on Monsanto's right to search the entrant's personal effects and vehicle for prohibited drugs and paraphernalia, alcoholic beverages, or possession of unauthorized property or equipment. The Certified Monsanto Representative (CMR) has the right to remove any contract employee from any of the Soda Springs Facilities until a substance abuse test can verify that the contract employee is in fact substance free.

Violation of this policy or refusal to submit to a search or drug testing will be cause for immediate termination of Permission/Authorization to work on Monsanto's premises. I agree to abide by Monsanto's reasonable suspicion.

I HAVE READ AND UNDERSTAND THE ABOVE POLICY.

_____ _____

Employee Signature Date

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EXHIBIT B

CONTRACTOR EMPLOYER SUBSTANCE ABUSE VERIFICATION

I hereby certify that our Company substance abuse program meets the standard set forth in the Monsanto Soda Springs site-specific document 6.9.1 as outlined in Option One or Two. I also agree to periodic audits of our substance abuse testing program to provide evidence that the program is in conformance.

Our selected option for the Soda Springs Site High Risk Contractor is:

Option One_____ Option Two _____

Name of Contract Company: _____

By:_____

Title:_____

Date:_____

Please fax or return the above information:

Monsanto Company
Attn: Tab Mendenhall
(208) 547-1311 Office
(208) 547-3763 FAX
tab.r.mendenhall@Monsanto.com

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EXHIBIT C

CONTRACTOR EMPLOYEE SUBSTANCE ABUSE VERIFICATION

Name of Employee: _____

Last four digits of Social Security Number: _____

Date Sample Taken: _____

Name of Testing Laboratory: _____

Test Utilized: _____

Negative Test Results* Yes_____ No_____*Do Not Send Actual Test Results

I HEREBY CERTIFY THE ABOVE TEST RESULTS TO BE CORRECT TO THE BEST OF MY KNOWLEDGE.

Name of Contract Company: _____

By:_____

Title:_____

Date:_____

Please fax or return the above information:

Monsanto Company
Attn: Tab Mendenhall
(208) 547-1311 Office
(208) 547-3763 FAX
tab.r.mendenhall@Monsanto.com

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Appendix H
Degerstrom Ore Haul Road Travel Requirements

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ORE HAULROAD TRAVEL REQUIREMENTS

VISITORS

Haulroad Safety

There are two different types of haulroads used by Degerstrom Ventures. The system of roads used for the hauling of materials between the pit and dumps or pit and ore stockpile. This system is referred to as simply haulroads. The other type of haulroad is the Ore Haulroad which is a 19 mile paved haulroad used for hauling ore from the tipple to the ore stacker near the Monsanto Plant Site.

Both of these haulroads share some safety rules but also have some safety rules that are specific to that particular road. It is important to understand the differences between these two road systems and obey the traffic rules that assure personal safety and help maintain safe haulroad traffic.

Sections of the haulroads in the mine are shared through a co-operative agreement with Agrium. These present additional hazards and restrictions that are also addressed in this section.

Right hand traffic is observed on all roads to, from and at the mine; unless otherwise posted. Large pieces of mobile equipment have very limited visibility, large blind spots, and often have extremely long stopping distances: so be aware of this and give mobile equipment plenty of room when approaching them from any direction. It is important to be cautious, pay attention to what is going on around you at all times and particularly avoid equipment in blind spots. Always stay in areas where you can see the operators of mobile equipment – ***"See & Be Seen"*** when traveling on all roads in and around the mine. *If you cannot see the operator, the operator cannot see you.*

General Haulroad Safety Rules

1) Obey all posted speed limits.

2) Obey all posted warning, advisory, and traffic signs.

3) Always wear seatbelts.

4) Watch for wildlife crossing.

5) Always drive with headlights on.

6) Adjust your speed for weather and road conditions.

7) Loaded haul trucks have the right of way.

8) Always assume that unless you can see the operator they cannot see you.

9) Give plenty of clearance to all mobile equipment. Remember: large equipment has very limited visibility and large blind spots.

10) When following a haul truck stay far enough back that you can see the driver's side mirror, that way the operator can see you.

11) Never approach mobile equipment from the rear. Avoid this large blind spot and approach from the driver's side. Never park directly behind any mobile equipment.

12) Be alert for material that may fall off the beds of loaded trucks.

13) Never drive past, over or around any type of road barricade.

14) Pay attention to horns, alarms and signals on all mobile equipment.

Ore Haul Road

The Ore Haul Road runs from the tipple at the mine to the unloading facility at the plant. This paved road was designed for ore hauling, but the upper portion above the Blackfoot River Road/Ballard intersection serves as the access road to the mine. Traffic between the Ballard intersection and the plant is restricted to ore trucks, service equipment, and small vehicles equipped with the proper two-way radios. All other vehicles must make prior arrangements and/or be escorted.

The Ore Haulroad crosses the Blackfoot River Road at Ballard. Traffic at this intersection is controlled by traffic lights. These lights regulate traffic on the Blackfoot River Road to allow the ore trucks to proceed through the intersection safely, without stopping. This is very important to the operation of the ore trucks, especially when the trucks are loaded with 210 tons of ore. The traffic lights are triggered by trips set in the asphalt prior to the intersection and cycle through a preset time, which allows the ore trucks to pass through the intersection before the lights change. It is important to avoid driving over the trips and triggering the traffic light cycles, tripping them may effect the cycle time and interfere with an approaching ore truck. The trips are clearly marked on the asphalt and with signs. The ore trucks have the right of way, so avoid driving over the trips, stay clear of approaching traffic, and any ore trucks that may be following behind you.

Ore trucks may be parked on the ore haul road during lunch break and if they are experiencing mechanical problems. When you are approaching these parked trucks slow down and use caution, the operator or mechanics may step out from under or around these parked trucks.

Ore Haulroad Safety Rules

1) Obey all posted speed limits.

2) Obey all posted warning, advisory, and traffic signs.

3) Always wear seatbelts.

4) Always drive with your headlights on.

5) Watch for wildlife crossing.

6) Adjust your speed for the weather and road conditions.

7) Ore trucks have the right of way.

8) Stay as far to the right as possible when traveling the Ore Haulroad, especially when meeting ore trucks.

9) Use extreme caution when passing an ore haul truck. Never pass on corners or hills where visibility is limited.

10) Avoid driving over the traffic light trip at Ballard and Conda crossings.

11) Never park on the paved portion of the haulroad. Always park in a spot that is clear from traffic. In case of a mechanical problem, park as far to the right as possible and turn on emergency flashers.

12) Slow down and use caution when approaching and passing ore trucks that are stopped on the ore haulroad. Operators and mechanic may be walking around these stopped trucks.

Haulroads at the Mine

There are numerous roads throughout the mine itself. These roads are used for a variety of purposes such as, to accessing various areas of the mine, drilling & blasting, and surveying. The haulroads are designed for specifically for the hauling of mine ore and waste materials.

The traffic patterns on these roads change continually during each shift, as needed. The basic rule here is to stop before entering these roads, look at the flow of the traffic and then follow. This has been posted at main entrances to haulroads with signs that read – "STOP LOOK and FOLLOW." Remember it is very important to ***"See & Be Seen."***

During drilling, loading and blasting some roads may be barricaded with signs, traffic cones or other means to prevent access to the area. This is done to prevent access to a blasting area before, during and after a shot. Never enter these barricaded areas.

Mine Haulroad Safety Rules

1) Obey all posted speed limits.

2) Obey all posted warning, advisory, and traffic signs.

3) Always wear seatbelts.

4) Drive with your headlights on.

5) Adjust your speed for weather conditions.

6) Loaded haul trucks have the right of way.

7) Never enter areas that have been barricaded.

8) **Do Not Pass** any mobile equipment or vehicles unless you have received clearance (by radio/hand signals) from the operator of that piece of equipment.

9) Be alert for material that may fall from the bed of loaded haul trucks. Keep plenty of space between you and a haul truck when following up any grades.

10) Give plenty of clearance to all mobile equipment. These large pieces of equipment have very limited visibility and large blind spots.

11) When following a haul truck, stay far enough back that you can see the driver's side mirror, that way the operator can see you.

12) Never enter marked or barricaded blasting areas.

13) Never park directly behind any mobile equipment. Always park on the driver's side. If you cannot see the operator, the operator cannot see you.

14) Pay attention to horns, alarms, and signals from mobile equipment.

15) Never park on the haulroad. Always park in a spot that is clear from traffic. In case of a mechanical problem, park as far to the right as possible and turn on emergency flashers.

GENERAL REQUIREMENTS:

- All visitors planning to drive on any haul roads shall successfully complete a specific hazard awareness training session presented by Degerstrom Ventures.
- All visitors on any haul road shall obtain Degerstrom Ventures permission for access.
- All visitors must check in and out at the Degerstrom Ventures Office before and after each visit.
- Vehicles using haul roads shall not trip the traffic lights at the Conda or Ballard Crossings.
- Posted speed limits & traffic requirements shall be followed when using the haul roads.
- Seatbelts shall be worn at all times when using the haul roads.
- Vehicle headlights shall be used when traveling the haul roads.
- Ore haul trucks are considerably larger than regular semi trucks. It requires much longer distances to stop them and they are much less maneuverable.
- Never pass a haul truck traveling on the haul road.
- When approaching a haul truck stopped along the haul road – SLOW DOWN & SOUND HORN before passing.
- Be alert for wildlife and livestock that may be on, along or crossing the roadway.
- Leave all gates along the haulroads the way that you found them.

SPECIFIC REQUIREMENTS:

1. From the stacker dump station to the gravel pit, visitors can use the haul road if they have completed the general requirements.
2. From the gravel pit to the corrals by the Fish Pond, visitors must complete the general requirements and have an approved Monsanto or Degerstrom Ventures' escort at all times.
3. From the corrals by the Fish Pond to the Ballard light, visitors can use the haul road if they have completed the general requirements.
4. From the Ballard lights to the Degerstrom Ventures Office, visitors with business to complete at the mine can use the haul road by following the requirements of the road signs.
5. From the Degerstrom Ventures Office to the tipple and mine, visitors must have a Monsanto or Degerstrom Ventures' escort or complete the general requirements plus obtain Degerstrom Ventures permission.

Degerstrom Ventures haul trucks, equipment and other vehicles shall always have the right-of-way and all vehicles shall yield to them. Visitors shall travel at their own risk. Degerstrom Ventures shall not be held responsible for their safety.

USE OF THE HAUL ROAD IS A <u>PRIVLAGE</u> GRANTED BY DEGERSTROM VENTURES. ANY VIOLATIONS OF THIS POLICY WILL RESULT IN REMOVAL FROM THE PROPERTY

RELEASE FORM (Individual)

In consideration of the permission given to me by DEGERSTROM VENTURES and/or MONSANTO/P4 PRODUCTION, L.L.C. to enter upon land owned or leased by DEGERSTROM VENTURES for the sole and exclusive purpose of _____, I, the undersigned, do hereby:

(i) Voluntarily assume all risk, whether known or unknown, of accident, loss and damage to myself and others and property resulting or arising from or in any way connected with my presence on said land;

(ii) Release and discharge DEGERSTROM VENTURES and MONSANTO/P4 PRODUCTION, L.L.C., and its successors and assignees, and its and their respective directors, officers, employees, and agents, from any and all claims, obligations, liabilities, losses, damages, costs, or expenses of any kind, (including, without limitation, attorney's fees), whether known or unknown, sustained as a result of or arising from or in any way connected with my presence on said land; and

(iii) Agree to protect, indemnify, and save harmless DEGERSTROM VENTURES and MONSANTO.P4 PRODUCTION, L.L.C., their successors and assignees, and its and their respective directors, officers, employees, and agents, from any and all claims, demands, causes of action, losses, damages, obligations, liabilities, penalties, costs, and expenses of any kind (including, without limitation, amounts paid in settlement and attorney's fees and expenses), whether known or unknown, suffered by, imposed upon, incurred by, asserted against, or arising in any way against, DEGERSTROM VENTURES and MONSANTO/P4 PRODUCTION, L.L.C. or any of their successors or assignees, or the directors, officers, employees, or agents of any of them in connection with my presence on said land regardless of whether caused by the negligence of DEGERSTROM VENTURES and MONSANTO/P4 PRODUCTION,L.L.C. or their directors, officers, employees, or agents.

IN WITNESS WHEREOF, I hereunto set my hand this _____ day of _____, 200_.

_____

Address: _____